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IN THE SUPREME COURT

The People of the State of New York

The Gold and Silver Mining Company

VOLUME

IN THE SUPERIOR COURT,

State of California, County of Sacramento.

OCTOBER SESSION, 1881.

HON. JACKSON TEMPLE, - - - - - PRESIDING JUDGE.

WINFIELD J. DAVIS, OFFICIAL REPORTER.

SAMUEL OSBOURNE AND WILLIAM M. CUTTER, REPORTERS.

The People of the State of California,
vs.
The Gold Run Ditch and Mining Co.

COUNSEL:

For Plaintiff,

HON. A. L. HART, Attorney General, GEORGE CADWALADER, ISAAC S.

BELCHER, A. L. RHODES, RICHARD BAYNE.

For Defendant,

J. K. BYRNE, W. C. BELCHER, S. M. WILSON, W. T. WALLACE, A. B.

DIBBLE, A. P. CATLIN.

Index

Skidmore, W. A.	Direct	7601
	Gross	7657
Morse, O. N.	Direct	7744
	Gross	7759
Skidmore, W. A.	Gross resumed	7776
	Redirect	7799
Anderson, H.	Direct	7810
	Gross	7834
McBeth, John	Direct	7852
	Gross	7863

Thursday, Dec 22, 1881.	Morning.	7600
do.	Afternoon	7743

In the Superior Court
of the State of California
in and for the County of
Sacramento

The People of the State
of California

vs.

The Gold Run Ditch
and Mining Company

Morning Session
Thursday
Dec. 22nd / 81

Transcript of Testimony
Vol.

Index

Winifred J. Davis
Official Reporter

In the Superior Court
of the State of California
in and for the County of
Sacramento

The People of the State of California	} Morning Session Thursday Dec 22 nd /81
^{vs.} The Goos Run Ditch and Mining Company	

Testimony
of
Walter A. Skidmore

Called for depot.

from

Mr. Debbie When do you reside?
A San Francisco.

How long have you resided
in California? A Since 1857

What is your business?

A San Secretary of the Miners
Association, my present business.

I repeat the question. What
is your business? A My business
is that of a mining expert

2. In what extent have you been engaged in that business in the State of California?

At all, for by now I have been engaged in the various capacities as Deputy Commissioner of Mining Statistics and specially employed by the Treasury Department.

2 How long have you been in that employment? A I was 8 years with the Commissioner of Mining Statistics and subsequently held other positions under the Government.

2 Are you acquainted with mining and the condition of the mining industry in California?

A Yes sir, thoroughly.

2 What opportunities have you had in that direction?

A Well, I state my opportunities under my employ as a Deputy of Commissioner Raymond I have had opportunities of visiting all portions of the State.

2 In your examination of that industry in the State have you had occasion to examine what is known as hydraulic mining?

A I have

Q Saw what extent and what number of mines have you examined in that direction?

A A great many hundred, I cannot say positively, perhaps it might be a thousand

Q State whether you examined have covered the drainage area of the American and Sacramento Rivers?

A They have, sir

Q What is hydraulic mining?

A It is projecting water by hydraulic force upon a bank of earth.

Q What is drift mining?

A The term drift is simply mechanical. Drift mining is hydraulic mining, the term drift mining is simply mechanical, it refers simply to the method of extracting the dirt from the mine. The same force is applied to it, it is washed by water and run through a flume.

Q Explain what you mean by stating that the same force is

applied in drift and by hydraulic mining? A. A head of water is used under pressure and it is projected against an amount of dirt that has been taken out and therefore the term drifting is simply the mechanical operation.

Q. What is the difference between placer, drift and by hydraulic mining? A. The placer mines are merely the surface ground that is washed. They are washed sometimes in tons without the projection of this force of water. The gold exists on the surface of the ground and is very easily removed.

Q. In all kinds of mining what elements are necessarily used? A. Water, so far as I know so.

Q. What with reference to outlet and dump? A. Well, an outlet is absolutely necessary to the successful working of the mine, there must be a fall

Q. Do you include any har-

to culminate in that answer, or does it refer to all mining?

A I refer to all mining, there must be necessarily an outlet or else you mine would be choked

Q What do you mean by dump?

A I mean a place vertically lower than the place where the dirt is found, there must be some place lower where the dirt is deposited and I call that a dump.

Q You say there must be some place of that character, else mining could not be conducted

Q To what extent has the dump right been recognized in the State?

A It has been acknowledged without any dispute, the right to dump

Q State to what extent it has been the universal custom of the State

Mr Hart. I object to that as leading

The Court. To what extent has it been the custom

A. I state that it is the common custom and habit of miners to so use their ground Mr. Debbles. The words Slickens and debris have been used in this case. Explain what they are, what they mean.

A Slickens in laymen's words with the term Silt or Alluvium, it is fine material. Debris is the heavier or coarser material, more of the nature of boulders and sand.

Q Where do these materials emanate from? A They emanate from various causes, partly they come from the processes of nature, they come from agriculture and they are the effects of ~~crucialization~~ ^{crucialization}, the cultivation of the soil, and incidentally of mining.

Q What material and soil will produce slickens and debris?

A. The causes of nature and agriculture, the uncovering of earth, the planting of vines and fruits.

2 How long do you say
you have been acquainted with
the American River and its branches?

A Since 1865

2 In what capacity did you
examine the American River and
its branches in 1865, and with whom?

A In 1865 I purchased a claim
at Gold Run, and subsequent to
that I examined the country
with the staff of the State
Geological Survey. My acquaint-
ance with the Gold Run dis-
trict extends back to 1865.

2 Who was the head of that
staff? A Professor Whitney
was the head of it

2 At what time did you make
the examination with Professor Whitney?

A Well, with his assistants
in 1870-1 and for several years
subsequent to that, I assisted
the staff, co-operated with him

2 Have you co-operated with
any other parties besides Professor
Whitney with reference to ex-
amining the mines, and if so,
what party?

A. I have with the Geological Survey; the Prussian Commission sent out here in 1876, I was with them by their invitation, I examined other mines with them.

I Any body else that you have been connected with.

A Well, Professor Raymond, I was connected with Professor Raymond from 1869 to 1876 and then subsequently in the employ of the Treasury Department of the United States, and made a report last year and am retained at the present time in the same employment. I have been retained in the same employment

Q Making reports to the government of the United States? A Yes sir.

Q In connection with that matter? A Yes sir.

Q State if you have examined the American River with these parties - state whether you examined particularly with respect to this country? A I have

Q Where do the granite belts appear in the American river? A There is a granite belt extending from Folsom to very near the junction of the middle and north forks of the American river there is an extensive granite belt and a very extensive granite belt in El Dorado County that is on the south fork

Q Where is the line of the granite belt on the north fork of the American river?

A It ceases about Auburn just about near or almost

about Auburn

Q State what quarries are embraced within that granite belt that ceases a little below Auburn?

A Oh there are extensive quarries at Penryn and Stations along the railroad

Q Rockland? ^{Rocklin} Penryn and back Pino

Q What is the character of that rock with respect to granite formation with reference to decomposition, wash and mica? Alwell is very easily decomposed by the action of air, natural action, it is a material that decomposes

Q Where is the natural waste of it after decomposition has taken place?

A Well over a very large area, the area that I am familiar with. It goes into the American or its branches

Q State now with reference to the mica that is carried

with it? Well there is a good deal of mica in granite. All granitic rocks have a large percent of mica.

Q Have you passed up the North fork of the American river beyond the point where you saw the line of the granite?

A I have yes sir.

Where to? A I have crossed the American river at almost every bar and every ford and every trail.

Up to what point on the river? Up to Warner's bar. That is the most northerly point that I have ever crossed.

Q State what you found in your passing up the river after leaving the line at Auburn with reference to any granite formation.

A I have not found any granitic formation north of the junction of the

Middle and North forks
of the American river
Mr Hart North is above?

A It would be above. That
is the same thing, the
general course of the river
is North.

Mr Wibble Are you acquainted
with the mining district
in this case called the
Gold Run district?

A I am.

Q How long have you known
that district? A Since 1865.

Q How often have you
visited it? A Two or three
times a year from 1865 up
to the present time, probably
on some occasions only once
a year.

Q In what capacity did
you visit it? A I visited
it in the character of the
United States Commissioner
of Mining Statistics and
also visited it in the
Capacity of Mining Expert
and I visited it also.

as the owner of a claim adjoining the Gold Run Company and also as an Agent of the Treasury Dept.

Q When did you last visit the district?

A October of the present year

Q What was the condition of the mines in that district when you first visited it and state the times?

A I visited the district in 1865. At that time they were working what they called then ~~or~~ the upper benches, they are called technically "benches", the light material

Q You mean the top material? A I mean the top material, they were successive benches from 1865 to 1870 they were working off the top benches

Q What was the depth of that top? A Well we found that the depth by

examination in 1870 was something about 160 feet.

Q Describe more particularly the character of material with reference to sand, stone cobbles, boulders and material like that

A The material on the surface was of a loamy character, evidently it had been a heavily timbered country; the evidences were there that it had been a heavily timbered country and there was a great deal of loam and underneath that loam there were different grades of gravel and as the benches were successively worked up the gravel became harder and more impacted, so to speak and contained more quartz. That is about the only distinction I can give.

Q State besides those materials were there any other materials like pipe clay?

If so describe what it contained? A well pipe clay was there. I think it was quite common before 1870. It is a material that is almost destitute of grit. and it is a great enemy to the miner; it is very tough and causes a great deal of trouble; the miner don't like it, it is tough and putty like, plastic, very much of the nature of putty.

Q I understood you to state that your examination at that time was made in connection with Professor Whitney? A That is in 1870 sir.

Q State what was the character of the land when you first went there? And when you went there with Professor Whitney?

A I did not go there with Professor Whitney. I accompanied his staff there, Mr Bowman

and Professor Pettie,
but they had reached a
greater depth, there
were working off the second
or third bench at the time
I was there with Professor
Whitney's assistants

Q What was the character
of the sand at the time
you made these visits
up to the time you went
there in 1870?

A They were more com-
pact and harder and
firmer and more im-
pacted

Q What with reference
to carrying mica?

A I never saw any
mica

Q Was your examination
so close that if mica ex-
isted there it would have
been detected by the eye.

< Objected to as leading >

Mr. Dibble What were the contents of the sands with reference to any matter of the character I have spoken of?

A The sands were mainly quartzose, they were grains of quartz as a rule, they were grains of quartz and disintegrated material of other rocks that had been brought down in the channel, but not of mica.

Q State what kind of sands carry mica, and especially whether quartz sands carry mica?

A Quartz sands do not carry mica. Mica might result from the decomposition of granitic rocks.

Q Did you find granitic rock there?

A I did not, sir. I was especially engaged to search for the granite belt above there in connection with the Geological Survey.

Q Are you acquainted with the duty of an inch of water upon such material as you found there in the top surface

A I know the relative duty of an inch of water. I know what it would do approximately as near as any one can.

Q What is its duty on that material? A. It would remove material of a soft nature perhaps to the extent of say ten or twelve cubic yards to a miners inch of that softer material and even more. I have known instances where they moved a great deal more. I have had measurements made especially for me.

Q Referring to the duty of an inch of water at that time what grade do you refer to?

A Well, the grade were very steep at that time, in the early times. They have changed the grades, they have modified them. Where they were 12 inches they are now less. Sometimes 6 inches and less than that. Every miner has his own idea as to grade, and there

is no more for it at all. I he wants to run off the greatest amount of dirt that he can.

Q When did you say you were last in the mine?

A In October of this year, I think it was about the 19th.

Q Who was with you at that time?

A Mr. Randall, a mining Engineer and Mr. Jones were present at the mine at the time, Mr. Gould, Mr. James Jones, the Superintendent of the mine.

Q At the time you were there in October last what displacement had taken place with reference to what you call the top gravel?

A. That top material, the top gravel, those benches had been worked off, but I saw the bottom of the pit and I went on the bed-rock, so to speak, and the banks presented that heavy, blue, cemented gravel as distinctive from the upper material which I knew in former times

I Direct your attention to the difference between the top material and material that remained in the mine when you were there, and state?

A The material that was in the mine from 1865 to 1870, the upper benches consisted of light material, loamy and I do not know but what there might have been some volcanic ash there, and the bottom material is a hard, compressed, cemented gravel composed of stones, boulders of varying dimensions, firmly cemented together and very different from the top material, different in color.

I Of the old top material what portion of it could be removed by water pressure without the use of powder?

A It could all be removed without the use of powder.

I Referring to the bottom, or present material, or the material remaining there since 1876 to what extent could that be removed by water pressure

Without powder?

A I do not think water would move it without it even shattered by the agency of powder. There would be very little effective force without the agency of powder.

I Explain fully?

A I endeavored to make myself clear on that proposition, because it is so emphatically cemented that the force of water projected against it would have very little effect on it unless it was broken up.

I What is the depth of the material remaining in the mine to be washed as you found it?

I At what time, sir?

I In October?

A The depth of the material do you mean the lower bench as I saw it last. It did not have a very great depth. It might be perhaps, where I saw it, 60 feet, at the point where I saw it.

I Did you average the depth

from the level to the top of the material remaining — the surface of the material remaining in the mine? A I did not, I did not take it with any view of taking the average but I know that I went up a slope of the bank that was about 160 feet and I think the vertical depth might possibly have been as much as 120 or 140 feet perhaps, but that was on a slope.

I In what manner is it necessary to disintegrate the bottom material, so as to be crushed by water, describe it?

A Well, I shined in a tunnel and put in a powder blast and, so to speak, left the material, shatter it.

I Well sir, is that a necessary method? A I do not know any other method of disturbance of such material as that without pursuing that course.

I Explain more fully as to the solidity of that material

remaining to be worked?

A It is absolutely compact. I do not know any other term than compact. It is a compact cemented mass

Q Explain more particularly as to the movability of it?

A It is very difficult to move it, it requires a great deal of water to carry it

Q What other means besides the blasting of it is required before a portion of it can be moved?

A The blast comes shatter the mass and enable a head of water to put it in the flume, and then in passing over the flume it comes break up.

Q State whether there is any thing else also required beyond the blasting merely?

A Nothing in the world except the force of water against it to move it

Q Is then an instrument used in a mine that is called a sledge hammer? A Yes

Q State whether it is not

Necessary besides powder to use something else in order to remove it after the blasting has taken place?

A I will state that powder is used sometimes for the purpose of blasting boulders, that is to break them up, giant powder for instance

Q Is there any thing else used except giant powder while to break up the rock?

A Not at Goco Run, in other places they use derricks to remove heavy stone

Q Are you acquainted with the American River, from Canon Creek down to Rice's bridge?

A From Warner's bridge to Rice's bridge I am acquainted with it

Q What is the distance?

A It is said to be about 8 miles

Q At the time you visited the river, from Warner's Bridge down to Rice's bridge, did you make an estimate of the storage capacity of that length

of the river? A. I do not, sir.

Q. What did you find as to the stage of the river at that time? A. I found that it was very full of tailings. I have known it to be full of tailings for many years, sir.

Q. What character of tailings?

A. Composed of cobble, and sand, of quantity, very firmly impacted and to a very great depth.

Q. What do you mean by stating very strongly impacted. Explain that with reference to water flowing over it?

A. Well, where cobble had been brought down and deposited in the stream, the interstices had been filled with finer material and it became very compact. It was so solid that a wagon could be driven over it as you could over a road-bed, in fact much better. It was one of the firmest road beds I ever saw.

Q. How as to its being moved?

A I do not think it could be moved

Q I know did the material which you found in the river compare with the bottom bench or the material now remaining in the Gold Run mine? A It was very much of the same character.

Q Did you visit the tunnel the outlet of the mine?

A I did not in October, no sir. I have you visited that tunnel? A Yes.

Q With reference to that tunnel where is the dump of the Gold Run mine?

A In the North Fork of the American River.

Q The dump of the Gold Run mine is directly into Canon Creek but the final dump was in the North Fork of the American?

Q Do I understand you that it dumps in there, that the dump is down below?

A The dump is in the North Fork of the American, its final dump is in the North Fork of the American.

Q What is the length of that dump? A I have never been all the way down the cañon, I could not state positively. If you want an estimate I will give it to you.

Mr Hart. I object to that The Witness. I have not been afoot down the cañon. I know the difference in the elevation is about 1000 feet.

Q What is the float character of the material, that has been worked in the Goos Run mine since 1876, and that remains there now, to be worked?

A I do not think I get the question.

Reynolds read the question.

A The material — the fine material, that which comes float by agitation of water, would amount to $7\frac{1}{2}$ per cent, less than 8 per cent, somewhere less than 8 per cent. The balance of the material would be quite heavy. The upper material is very light, very light indeed.

Comparatively light I mean
 Q Of the material worked since
 1876, and now in the mine, what
 per cent of it would pass for a
 stone below Rice bridge?

Mr Hart. Subject. The witness
 has not shown himself to be
 competent

Mr. Dibble Are you acquainted
 with the velocity of water and
 the force of water with reference
 to carrying material.

A I have ^{studied} it sir, but I
 can not say that I, or any one
 else, am fully acquainted with
 that, sir

Q Have you studied the power
 of water with reference to
 the floating of material, such
 material as you find in the
 mine, remaining there?

A I have

Q Have you had personal ex-
 perience besides studying?

A I have, sir

Q With reference to it?

A I have sir

Q State then to what extent

material coming from that mine, of the character that is in the mine will pass a point, for instance Rees Bridge, down the North Fork of the American River.

Mr. Hart I do not think he has shown his competency to answer that question.

The Court. Where did you study, and where, and what for?

A I have studied it in this way. I have taken the specific gravity of the material that I find there. I have been in the habit of making experiments of that kind for a number of years in connection with our business, and I am qualified simply to that extent. My line of observation has been confined to just such questions as these and I have studied and experimented.

2. By taking the specific gravity I understand you? A Yes, by taking the specific gravity and by taking the material

and seeing the effect of water on that material and seeing how much will remain in suspension

Q Did that give you any idea of the effect of water in washing material? A I have observed streams in motion and I have seen the effect of motion in carrying material

Q That has not been your business or study though? A No sir, I never made a specialty of hydraulic Engineering. I do not think there are more than 3 or 4 hydraulic Engineers in California. My knowledge is more practical than theoretical

Q How practical?

A Long Experience, Sir

Q In what? A I have owned mines, I have been a mine owner and mining Superintendent. I have been acquainted with mining for 16 years in various capacities Mr Hart. Will you honor permit me to examine him as to his competency before

He answered that question?

The Court. Yes.

Mr Hart Of what have you taken the specific gravity?

A I have taken the specific gravity of sands from the Gold Run Mine - top and bottom

Q. What is the specific gravity of sand from the Gold Run Mine?

A It is 2.58, about 2.58

Q. About 2.58 what?

A It is 2.58. That is the specific gravity

Mr Belcher That is water would be 1 and sand 2.58

The Witness The specific gravity of the top dirt is about 2.81, as compared to the bottom

Mr. Hart Was the specific gravity of the top dirt, taken as a whole, including the rock such as you saw?

The Court I suppose this cross-examination should have reference to his quali-

fication as an expert, and not as to the facts of the case

The Witness It was taken as a fair sample, sir

Mr. Hart Did you take the rock in with the dirt?

A yes. The material—the rock material, yes—the fact of Mr. Belcher This examination does not tend to show his competency

Mr. Hart I want to know what material he took.

Mr. Carl Where did you take the specific gravity of the top dirt in this mine?

A I was in the mine on the 19th of October somewhere about that time — The 18th of 19th of October.

Q This year? A Yes I took samples this year, yes.

Q Of the bottom dirt?

A The same time, the same day, Sir.

Q What did you take with you? A On the bottom I took a shovel and I shoveled from the bottom of the pit where it had been washed and on the top I pursued the same course. I took the material just as it came.

Q What instrument did you have in taking the specific gravity? A I used the usual instrument. Had it done right under my supervision in San Francisco.

and I was present at all the weighings

Q You had what under your supervision? A It was under my supervision

Q Where? A At John C. Griscombs in San Francisco

Q What did he use?

A He used the ordinary bottle that is used in those cases to determine the specific gravity

Q Are those the only experiments you have made?

A Those are the only ones I have taken of this material I have frequently weighed material to determine the specific gravity, but of this material this is the only test

Q That is the only test you made of the material in this mine? A Yes

Q Or material like this in this mine? A No sir I have made experiments with material like this

in this mine

Where? A at Grass Valley when I was engaged in the business

What business? A I was Assayer there for the Fryer Metallurgical Works

What instrument did you use there for taking the specific gravity?

A I weighed in air and in water. I had balances and all proper instruments for determining the specific gravity

What observations have you made with reference to the flow of water and its velocity? A I have not made any other than all intelligent men make who are brought in this line of business

What observations do all intelligent men make? I want to know what observations you have made
I do not care anything about

intelligent men

A I have made observations all over on the streams of the State. I have had a cousin to examine them and I have made personal observations.

Owells how? Alwells by observation. It is the sense that is brought by reasoning by sight and by the effect - the effect of the causes of nature.

O Now you have seen streams and with the eye have observed the effect? Is that it? Alwells I have

O Do you know anything about the velocity of any stream of water in this State? A I do know the velocity of several streams where I have measured the velocity.

Where did you ever measure the velocity of the stream? Alwells I have done so on the forks of the

American river very recently and it has been my practice for a number of years to measure the velocity of streams.

Q What measurements have you made on the forks of the American river? A I crossed all the forks of the American river.

Q You did what? A I crossed all the forks of the American river. I made a box and measured the velocity of that stream.

Q How did you measure it? A By means of a chip and a time watch. I measured the velocity of the current as a chip would float in.

Q You put a chip in the stream and watched it go down and timed it?

A Yes.

Q Did you measure the distance it went?

A Yes. I measured the distance. I made a line

Q That was the American river in low water? Ayes at low water

Q How deep was it then
A Sometimes it was 2 feet in some places and 18 inches in others

Q It was at the low water mark? Ayes

Q How deep is the stream at the high water mark

A It would be at least - in some places it would have been 12 feet higher

Q 12 feet higher in some places? Ayes.

Q That is ordinary high water

A No Sir I speak of extra ordinary high water

Q Such as we had in 1862

A In 1862 I was in Sacramento and we had very high water here at that time

Q How much faster would that stream run when it was 12 feet higher than at that time?

Mr Belcher I object that the

examination is proceeding beyond ~~one~~ inquiry as to the capacity of the witness and to determine his ability to testify

Wristall Q Show much more water will a stream like that run over a bed like that. Show much faster will it run when it is 12 feet higher than it was at that time

< Objected to >

Wristall I am asking for the rule. I want him to work out the proposition if he understands the rule

A I do not profess to know it. I did not state that I did not the rule

Q Now then what is the rule by which you determine the amount, the character and weight of the material that would be carried in suspension in water of a given velocity

A I do not attempt to determine any thing of that

kind sir

Q You do not know?

A I do not make any statement

Q Then you do not know and have no scientific knowledge that would enable you to determine the amount of material carried in suspension?

A I do not sir

Q You do not? A I do not. I should look in the books if I were consulted on that proposition. I would find out

The Court Your observations have been confined to flumes?

A Yes, flumes and streams

Q Mostly to flumes?

A No sir mainly in regard to streams and the measurement of water. It is a very common thing to measure the amount of water in a stream in the course of the examination of mining properties. It is necessary to know how much water will be available

Q As to moving material

it was not necessary?

A As to moving material I would have to look up some of the formulae. I have not made that a speciality.

The Court It seems to me it is hardly worth while to take any time in examining the witness on that subject.

Mr Becher The Court then sustains the objection;

Ex we except

Mr Dibble Q You said you examined the sands found in the Gold Run mines?

A Yes.

Q Have you examined the sands in the Sacramento river and in the American ~~below~~ opposite Sacramento and running up the river?

A I have opposite in the American river opposite Sacramento.

Q "gray sand deposited from rivers on land of W. Hodgson No. 8." Examine

that bottle and state whether the sands in that bottle are of the same character of sands that you find in the Gold Run Mines?

Witness I object to this witness testifying on this subject until he shows himself competent. I objected that he is not competent.

< Objection overruled; plain Ex ffs except >

A I state that those sands never came from the Gold Run mine sir

Q "No 10, taken from the Sacramento River at E. Dole's" state whether the sands contained in that bottle are of the same character of sands that are in the Gold Run mine?

A They have notably one ingredient, but they are not of the same character.

They have one ingredient of that material but they are not of the same character.

Q "Sand found on Bar between Old Mouth and New Mouth of the American river. No 6" Examine that and see whether that is the same kind of sand that is found in the mines at Gold Run.

Ans sir it is not

Q "No 1. about one quarter of a mile above Sacramento Bridge. The highest point of bar below surface" Examine that bottle of sand and state whether that is the same character of sand found up in the Gold Run mine.

A It is not the character of the Gold Run sand sir

Q "Sand covering portion of land north of Sacramento City near the American River No. 4. A. S. G." Examine that and state whether that sand or not is of the same character as to be found in the Gold Run mine?

Ans sir

Q "Sand found on land of

A Stender opposite Sacramento City on the Yolo County side of the American river No. 7." Examine that and state whether the contents of that bottle so far as the sand is concerned is the same character of sand that is found in the Gold Run mine?

Ans. as it is not, most decidedly

Q "Deposit of 1862 on lands of Greenlaw No. 1." State whether any material of that kind is found in the Gold Run mine and where that material came from?

A The last material we have given me is vegetable soil mostly loam it is earthy matter and it is impossible — I could not state with respect to that material where it came from. It presents the characteristic of vegetable mould

Q That I understand that it is vegetable matter?

Ayes mainly it is loamy soil. It would be impossible to go so far as that. I am positive on the other sands. I do not know where that came from, that identical matter.

Q To what extent ~~has~~ your experience gone in the direction of examining sands? How many years?

A Perhaps not more than 10.

Q And to what extent?

A Well as a matter of study that is all. I have never been employed ^{harshly and} however

Mr. Dibble soon mean by eyesight study and book study. A Both practical and theoretical. Of course any person can see the vegetable fibres in that matter. Anybody can see that.

Q Have you examined in the drainage area of the American river this year?

A Yes sir

Q If so when? A From
the 5th of October up to the
20th or twenty second

Q In making your observation
state the route you took?
A I proceed from here to
Folsom and I crossed
the River - I think they
call it Negro bar and
from there went to Mormon
Island Salmon Falls
Placerville and thence
across the Country to
Georgetown and thence
to the middle Fork of
the American to Fords
bar. That is in the
middle Fork, it is nr.
the Fords bar referred to
on the north Fork. Thence
to Todd Valley, Firrest Hill
and around the head of
the Canyon of Short
Tail and Indian Canyons
and on through Menona
Flor to Iowa Hill and
across at Warners bar to
Gardner and then down

to Auburn and then I came
down the River to the junction
of the two Forks,

Q What was the Condition
of the American River at
the time of your visit to it?

A It was quite muddy
at Sacramento here and
quite muddy at Folsom.

Q State if you know the
Cause of the River being
muddy at that time?

A I ascertained the Cause
the fact of Mining oper-
ations and Agricultural
operations, the Causes of
Nature probably contributed
somewhat.

Q At the time you
found the River muddy
from the Causes you
have referred to state
whether there was any
hydraulic mining then
being carried on at the
Gila Run Mine?

A There was not any sir.

Q None at that time?

A none at all.

Q Describe if you can to what extent the River was muddy at that time when no hydraulic mining operations were being carried on at the Gold Run Mine?

A The North Fork of the American River was quite clear notably so in comparison to the middle fork. The middle fork carried a large amount of sediment in suspension and it was quite muddy and so was the south fork.

There were no mining operations at that time the water season had run out and there was no water, nothing to produce mud by hydraulic mining.

Q State if you know how many mines or mining claims are there in the drainage system of the American?

A There are 131 Placer Claims patented and 74 quartz Claims but I suppose that there at least three times as many, that would make about 202. I suppose there are about

7594 a 1000 mines in that drainage system

2. How many men?
 Mr. Hart. If you know. I object
 to the testimony unless it is shown
 that he knows.

A. I do not remember Sir, I obtained
 the mining population, at least the
 full population in connection with
 my business, I can not remember
 just now Sir, I would not like
 to say how many people were
 employed then, I would have to
 refer to statistics to do that.
 I would not do it without refer-
 ence to statistics.

Mr. Dibble. State if you know
 how many big drainage districts
 there are in that drainage sys-
 tem? A. Yes Sir, there is
 the district of Gold Run, the dis-
 trict of Cowastree, the district
 of Forest Tree, which covered Em-
 brace Yankee Jumps and Michigan
 Bluffs, all on the same system,
 then crossing and going further
 south, Volcanoville, and high
 region of Eldorado County a
 large portion of Eldorado
 County is the vicinity of

Placerville the large portion
 part of the County

I state whether you made
 a careful examination of the
 surface, the disturbance of the
 watershed of the American
 River during the time that you
 were making your trip around
 A. I did. I observed with
 a good deal of care, sir.

Q. Did you with reference to
 the disturbance of the surface
 by early washings? A. I
 observed that the great amount
 of material had been turned over

Q. How much area has been
 disturbed by early mining and
 what is the nature of the dis-
 turbance? A. The area is
 it would be impossible to state.
 It would represent I think some
 hundreds of square miles taking
 its area, but it has been turned
 over and over again by succe-
 ssive workings of miners from a
 very early period.

Q. What character of mining
 was it that caused the disturbance?

A. It was, what was called the river, bar, and place mining I with reference to the matter so disturbed, where was it out-let and where did it flow?

A. It comes flow into the American River finally, what material that flowed at all came to the American

Q. When principally was it carried to the American River and to what point on the American River — I am referring to the flood of 1861-2.

A. I think that it was from the disturbance of earlier days of mining

Q. When carried down the river.

A. Carried down by successive high water seasons. We have a high water season about once a 7 years, and it removes a good deal of material

Q. Do you remember the high water of 1861-2 and if so, state what the effect of the heavy flood of those years was upon the material disturbed by

Early mining.

A I remember the effect of those floods here, at Sacramento. I saw a deposit of several inches of silt that had been washed down by the high water.

I state what you know in reference to the effect of crushing by stamp mills and the cutting of sand therefrom into streams.

A I think they contribute largely to the amount of material that is carried down in streams and deposited in the rivers.

Q. How about drift mines in that direction?

A Well, about all of the material from the drift mines go down into the rivers, about all that is taken out.

Q How about seam mines in that district? A Seam mines are partially quartz mines, they usually have a mill attached to them, and they are worked partially by hydraulic process and partly by crushing, there is a great

Amount of material carried into
the stream from that cause, a
very great amount. At the time
of my visit all of the material
was carried for that nature of
mines, placer mines.

2. Referring to stamps, how many
within your knowledge, are running
in the American drainage area?

A I should have to look at
my note book.

I look at it. Just at Placer
ville? A. < Referring >
At Placerville there are 50 stamps
running in drift mines, there
are 50 stamps running at quartz
at the Pacific mine and there
were 50 stamps at the Grop mine
that would make very near
100 stamps that are in operation
in the vicinity of Placerville.

2 What is the crushing weight
of the stamp? A It is u-
sually considered effective at
about two tons a day almost.
Some mills don't run up to
that capacity, about two tons
a day — Two tons to the stamp

I How many at or near Georgetown and Greenwood?

A About 50 stamps near Georgetown and near Greenwood there is an effective capacity of Finley work, that comes it equal to about, say 80 stamps if you take the work sections, equivalent to 80 stamps. I wish to state here that the duty of a stamp on gravel and on quartz is very different, that a quartz mill running on quartz will crush about two tons a day, but on gravel and material of that kind about four tons.

I saw many stamps are running in the Forest I will divide if you know? A There are ten stamps running at about the Paragon mine and there are two other mills in other portions of the county that I did not visit personally. I What is the character of the sand which comes from these stamps?

A This is very fine material from the quartz mines, very fine indeed, it passes through a 60 Screen about 3000. measures to the inch

Q What is the character of the sand coming from these stamps with reference to the natural sand of ravines and mines?

A The character of the sand coming from a quartz mill is very much finer, of course. It must be, it is finer because it passes through very fine screens, it is crushed to a great degree of fineness and it is carried along by the water

Q What with reference to sand that is generally called flour sand, as fine as flour?

A Oh, I do not know anything that is really as fine as flour, I never heard the term flour sand used. The sand from the quartz mines is very fine indeed, I have a sample of it if you want to see it

Q What natural causes

Contribute to the filling of rivers
 coming from consideration mining
 Causes. A. All causes,

land slides, omitting the effects
 of civilization, land slides, av-
 alanches, the movement of snow,
 farming of course contributes very
 greatly to the disturbance of
 soil in any way.

I What else?

A. The natural causes are
 only the effects of nature.

I What with reference to frost,
 and denuding the land of timber
 and so forth?

Mr. Hart. I object to that as
 leading.

Mr. Dibble To me, and state
 all the causes?

A. The effect of frost is so
 palpable to every one that
 it never comes across to me
 to mention it, sir, the effect
 of frosts, the freezing of
 rivers and denudation from
 that reason.

I State if you know the
 extent of the mineral belt?

A Where of, California?
 I The mineral belt?

A Well, the mineral belt extends within our whole territory from British Columbia to Mexico; it takes in the territory and States of Montana, Dakota, Nevada, Eastern Oregon, Idaho, Utah, Arizona, California, Colorado — practically it is every thing on this side of the Rocky Mountains.

I You speak of Oregon, Dakota, and New Mexico.

A I speak of them as mineral countries.

Crop-Examination
 of

Walter A. Skidmore

Mr. Hart What are your duties as Secretary of the Mineral Association? A Maintaining the correspondence with our members.
 I When did you become a mining Expert? A About the year 1870

Q In what respect did you then become a mining expert?

A As an associate of Professor Raymond my duties ought to be in connection with mining matters.

Q In what respect were you an associate? A I was his Deputy in this state, sir.

Q What were your duties as his Deputy? A My duties were the examination of mines the compilation on statistical matters the examination of methods of producing gold.

Q What particular qualifications did you have at that time for the examination of mines?

A I had at that time a little experience, sir. I gained the experience in practice.

Q What examinations did you make during the first years of your deputyship?

A I examined the Combs of Nevada and Placer.

Q Had you ever made mineralogy a study? A I had

not at that time but I
commenced it just at that
time, Sir.

How old were you at that
time? A I was born in
1837

Q To what extent have you
pursued the study of mineralo-
gy since that time?

A I have pursued it continuously
since 1870

Q What works have you studied
on that subject? A Well,
I have studied Chapman on
that subject, Chapman's Mini-
eralogy and I have had such
tutors as Professor I think
and Mr. Grosvenor and J. V.
Phillips of San Francisco

Q To what extent have they
been your tutors? A Because
I paid them for lessons

Q In taking lessons?

A Yes Sir practically

Q What reports did you have
to make as the deputy of
Raymond?

A I made
report from 1869 to 1876

many of them founded on
my personal examination
of the mines.

Q What was the nature of
those reports? A They were
in the nature of general in-
formation.

Q Statistical?

A No, they embraced some
statistical information, but
they were mostly descriptive.

Q Descriptive of what?

A Mining, and its nature
and the methods of extracting
gold.

Q. That is you described
dry drainage mining, drifting
quartz mining and Seam mining.

A Yes sir.

Q Did you do that in each
report? A I did some
of it every year, sir.

Q. Toward giving a full and
complete description of those
several methods of mining.

A Yes sir, that was my
duty sir, and I endeavored
to accomplish it.

Q I understood you to say that drift mining was the same as hy draulic mining?

A I stated that dirt was moved by hy draulic process

Q Well, I understood your answer to be that drift mining was the same as hy draulic mining? A That is, in a broad sense that is used in regard to hy draulic mining which would embrace drift mining and then again there is a more limited sense

Q The word hy draulic as applied to mining has a technical meaning, has it not? A The word

hy draulic has an accepted technical meaning as being compared to the projection of water against heavy banks

Q Hy draulic mining differs from drift mining principally in the fact that dirt that is washed away, does it not? A A hydra-

lic mine washes more dirt

than a drift mine

Q Very much more?

A Yes sir, drifting is a
mer mechanical operation

Q In the case of a hydraulic
the mine they commence at
the top and wash a mountain
down to the bottom of the
gold deposit? A They
wash down successive benches
until they reach the bottom

Q In the case of drift mining
they wash nothing except the
pay dirt? A They wash
that which pays them to ex-
tract

Q They leave the main body
of the mountain standing and
take the dirt out through tun-
nels? A They take
the dirt out through tunnels

Q You said also that the right
to dump into stream, is a
right that has never been
questioned? A I said so

Q Do you know that to be
true? A I know it

to be true until this case

was brought, Sir., I leave
 Annear to this up to that
 period.

Q How come you know whether
 any one questioned the right to
 dump into streams?

A Because I know of one
 that were located for the pur-
 pose of dam and mine mines
 that were covered by accumulated
 debris from mines and the
 right was never questioned?

Q How do you know?

A I know it from the persons
 who owned the claim.

Q Who owned the claim upon
 which they were dumped?

A Upon which was dumped
 I But when you say that
 the right to dump was never
 mentioned you do not mean
 to say that you know what
 every man in this State has
 done in reference to that
 right, do you?

A I do not know of any
 instance until these suits
 were brought where the

right was ever questioned.

I But you do not mean to testify in this case that you know what every man in the state has done with reference to this right? A I do not know ~~Deci~~, I only speak of my own knowledge.

I But when you say it was never questioned, it was never questioned so far as you know. A So far as my knowledge is concerned and it is quite extensive.

I Don't you know that one of the hydraulic miners in this state was compelled to and did buy a large tract of land for the purpose of dumping upon, because of the contest, and of questioning their right to do it? A I know as a matter of common report, not of my own personal knowledge.

I That comes within your knowledge just as the other matter has come within your knowledge.

This was a matter of hearsay,
and the other was a matter of
hearsay.² The other way
a matter of fact, because I
have known cars to be covered

2 If you did know that
the right had been questioned
and a man had been compelled
to purchase land on which to
dump his tailings either by
hearsay or otherwise you
could not testify that the
right had never been questioned
could you? A Within my
personal knowledge the right
has never been questioned, but
as a matter of repute, I
say it simply as a matter
of repute, that I have heard
that the Spring Valley Company
had purchased land below

2 What do you say that
Shelton is synonymous with
a silt or alluvium. Slicker
is a fine silt material.

2 What is alluvium?

A Well, it is material that
is disturbed from the face

of the Earth and carried - it is a material that goes in fine Cushingian and is deposited by water

Q And you distinguish a thin Shallow as the finer material and debris the heavier material

A That is my distinction Sir.

Q What is debris?

A. It is the coarse and heavier material

Q Where do you get that definition? A Of debris?

Q Yes Sir. A I do not know but what it may be original with me, Sir

Q I expect it is. Do you know what the true definition of debris is?

A. It is a very broad thing, it is material that is moved, material, composed of rocks and sand and material of that kind

Q Now what do you say alluvium is? A Alluvium

is the lighter material that has somewhat an abased

Ordnance and is carried in
Suspension and is deposited, it
is finer

Q. Is it alluvial before it
is carried in suspension or
after it is carried in suspen-
sion?

A. It is alluvium,
alluvium and silt are synon-
ymous terms

Q. I thought you said alluvial?

A. No, alluvial would
be an adjective

Q. I understand you to say
that. Is it you the mean-
ing of the word alluvial?

A. I answer that it is a
fine material

Q. But I am asking you
about the alluvial?

A. I did not use that
term, that is an adjective

Q. Did you say that Slicker
is synonymous with silt
and of an alluvial character?

A. I said alluvium, I did
not say alluvial

Q. Didn't you say it was an
alluvial material?

Q I did not say
 I well, what is alluvium
 A Alluvium is the fine
 material which is synonymous
 with silt

Q Is the word alluvial, the
 character alluvial ever applied
 to any kind of soil?

A I think it could be prop-
 erly applied to soil, yes sir.

Q What kind of soil does it
 mean?

A It means a
 very fine soil, material that
 is carried in suspension, it
 would not designate the qual-
 ity of the soil at all, any
 material may be alluvial whet-
 er it be productive or not

Q What are the elementary
 or primary ingredients of shikens

A The analyses would differ
 greatly. I do not think there
 are any two samples of shikens
 that would present the same
 — I think that probably
 the mineral known as alu-
 mina would possibly pre-
 dominate

Q Well what else?

A There would be some iron, and a small proportion of silica and potash, there would be potash also.

Q That makes up shikam?

A That would come very near it, with some soda, the alkaline substances would give what we call shikam.

Q Does that contain any element that is productive?

A As far as I know, I would not say that it was.

Q Do you know?

A No, only from the observation that I have made. I have never cultivated a farm.

Q Do you know of any analysis made of shikam recently?

A Yes sir, I do.

Q By whom?

A It was made by Professor Hanks, I believe.

Q Of what place and what institution?

A Professor Hanks is the State Mineralogist of California.

Q. Under whose direction was that made? A. I do not know sir, I just took it out of the Bulletin last night. I have not had an opportunity of reading it even.

Q. Do you know whether or not that was an analysis of a specimen produced in the Court during the progress of the trial?

A. I do not sir.

Q. Do you know whether or not that was an analysis made under the direction of the defendants in this case?

A. I do not know sir, I do not know that it is, or in fact I have not had an opportunity - I just cut it out of the Bulletin this morning.

Mr Belcher Subject to that as not cross-examination.

Mr Hunt. I want to show what he knew about it - Does that analysis conform to your own idea of the Elements of Chicken?

Mr Decher Subject to that
as not cross-examination

Mr Hunt. I ask him if that
conforms to his idea of the
present elements of shikens.

The Court. I sustain the objection

Mr Hunt. Perhaps you do not
understand the question. He
undertakes to give at their re-
quest a definition of shikens.
I want to know whether or
not his definition conforms
to the definition which he
finds in the slip of paper
which he has in his posses-
sion now. That is all.

The Court. He was only ex-
amined as to the physical
appearance of it, he did not
say anything as to the anal-
ysis of it.

Mr Hunt. Is it synonymous
with Silt?

Ayer sin

Q Shikens is Silt?

Ayer sin

Q Silt is Shikens?

A. Silt is Shikens, yer sin

Q The Shikens that runs

down this river is Silt, is it?

A It is silt, yes sir

Q Now, what is silt

A It is the fine material that is carried in suspension by the water and deposited

Q Well, what is the fine material?

A That fine material is composed of siliceous earth, earthy matter. 2 It may be made of anything that is crushed to a very fine texture may it not or very fine particles

A Now, not necessarily because the heavier matter will remain behind, that which has the greatest specific gravity and the lighter, the organic matter will flow further and form silt

Q Unquestionably it will go further - Do you mean to say there is any organic matter about silt? A. There must necessarily be wherever water passes over vegetable matter

Q Do you mean to say that
Airt is vegetable matter?

A It is undoubtedly the
product of vegetable decompo-
sition combined with mineral.

Q What is the definition of
fossils given by the text writing?

~~Q~~ The technical definition
of it? A I do not re-
member it. It is matter car-
ried in suspension.

Q You spoke of organic matter.
What do you mean by organic
matter as comprising a part of
this soil?

A I mean mat-
ter that has been vegetable or
that has sometime had life
like a plant may have life,
speaking in that sense.

Q Is it quartz ground
to an impalpable powder?

A No sir not at all

Q Is it not?

A No sir not at all,

quartz is mineral.

Q Now what is quartz?

A Quartz is silica -

Pure quartz would be

Silica.

Q And the difference between Silt and Silica is that the one is a mineral and the other vegetable?

A No sir I did not say that, Silt may be composed of a portion of silica but silica is a mineral and it is the main ingredient of what is known as quartz while silt as it is carried down here carries organic matter in suspension with it.

Q Now is not silt any material that comes down stream in a fine condition?

A I do not think so Sir.

Q Is not?

A No sir I would not give that definition of it.

Q Now give me your definition again?

A My definition is finer ~~more~~ Material than is carried in suspension by the waters and that it is deposited, its Chemical Constituents may be different, it would show probably a large amount of Alumina which is a very common earthly soil, the mold so to speak, earthly mold.

Q Would it have to be deposited before it was silt?

A No sir it would be silt in suspension but when deposited is known as silt.

Q After it is deposited it is known as silt?

A Yes sir it does change its nature as all from the fact of deposition, that is

Merely Mechanical.

Q Does this Organic Matter Come out of the Mines that you speak of?

A No sir it does not.

Q Where does it come from

A It Comes from Vegetation.

Q It Comes from Vegetation?

A Yes sir Soil.

Q Where did you get and by what process did you arrive at your Conclusions as to the Constituent parts of silt

A I have read Analyses made of soils

Q Where did you read them?

A Well I believe I have read them in the State Engineers report I have read them in the department of Mineralogy in San Francisco.

Q Where did you read the last one?

A The last one I read

it right here have got
it now. I have our
one of last night's
Bulletin.

O so that the bases of
your knowledge

A no sir it is not
because I did not read
it until you called
my attention to it.

Mr Belcher I object to
this course of examination
on the ground that it
is not in cross examina-
tion -

The Court He testified
nothing about its Chemical
Compounds I will sustain
the objection

Mr Hart I will ask
the question so as to
put it squarely, how
do you know what are
the constituent parts
of silt

Mr Belcher I object to
that as not cross examination
The Court I think that

Question is already answered

Mr Belcher Counsel asked it again for the purpose of getting an exception as he states himself the reason for that whor he is asking now is what are the constituents Chemical elements of silk

The Court The question asked has been answered and the objection to it is sustained and I also sustain any objection to questions going to the Chemical Constituents of it because it is not cross examination.

Mr Hart We take an exception.

Mr Hart You testify that you never found any granite formation above the middle fork of the American River? A I did above the

Junction of the Middle and North Fork that is on the North Fork;

O Have you ever visited the North Fork above the Mouth of Canyon Creek

A Yes Sir I have 'Crossed it many a time above Canyon Creek.

O How far up

A Above what is called Giants Gap and I have been in Humboldt Canyon I crossed it I suppose the distance must have been fifteen or 20 miles, probably fifteen miles above Canyon Creek?

O Have you ever been on the summit?

A The summit of the Sierra Nevada Yes Sir

O At the Head waters of the American River?

A I have Sir

O Any granite there

A Yes Sir the main summit of the sierra

Nevada Mountain is a
granitic formation

Q How far down does
that granite formation
extend?

A It extends on the Rail
Road down to about a
point - I would put
Cisco about the line
the elevation probably of
6000 feet.

Q How far is that
above Gold Run?

A That must be about
40 or 50 miles

Q By the River?

A No I am referring
to the Rail Road line
the Rail Road runs
right parallel with the
River any way.

Q You say it is 50
miles up there?

A It is about 4 miles
I think

Q From Gold Run to
Cisco?

A No sir I said up to

The Summir.

Q Well I mean the Summir, how far is Cisco?

A I should say it was 30 miles.

Q Well is it 20 miles?

A I could tell you exactly. I have got the table of distances in my pocket, it would be as fair to refer to that as to rely on memory (Referring) from Gold Run Station or Water Flats is about 20 miles or more - 22 miles.

Q You say that you became acquainted with Gold Run in 1865?

A My first visit there?

Q In what capacity did you visit that mine in 1865?

A I bought a piece of ground adjoining.

Q What ground was it?

A It was called the Warren and Remington ground

Q How far is that from the Gold Run district?

A It is right in the Gold Run district.

Q How far from the Indiana Hill mine?

A It is adjoining it. its boundaries join now I am told I have sold out

Q Did you at that time make a critical examination of the material that was being worked in the upper bench?

A Yes sir I observed it very closely

Q What proportion of that material was rock?

A There was not a very large proportion of it rock

Q But there was a proportion of rock?

A Yes sir fine quartz pebbles.

Q Were there nothing else except quartz pebbles there?

A There were no boulders

at that time sir.

Q none at all?

A none at all.

Q Have you examined the sides of the old workings that are still left standing
A Last October of the present year I was in the claim and I walked up the bank and of course I must necessarily have seen something of it
Q You looked at it didn't you?

A I did look at it.

Q How did those banks still standing compare with the material that was originally washed out?

A The banks were very different, they presented a very different appearance the bottom was this hard blue cement which we did not know -

Q That is not what I am asking you, I am asking about the banks

of the old washings. I ask you how the banks still standing upon the old washings compare with the material taken from those banks?

A The upper washings were the finer material, the lower benches now presented
Q I am not asking you about the lower benches I ask you ~~whether~~ the banks left from the upper washings and from which the upper washings were taken compare with the material that was taken from those banks?

A The material that existed there from 1865 to 1870 has all been washed away therefore I could not see it.

Q Are there not banks left against which the washings were made, rims left?

A Yes sir

Q Walls left?

A Yes sir

Q Out of which the upper bench was washed?

A There was just such a bank as that sir.

[Referring]

Q How? A There is such a bank

Q Now how does the material in that bank, the one that I speak of out of which these things were washed compare with the original material that was washed out of the upper washings?

A They have worked up to the rim rock and they have worked away that material that I saw there a great many years ago and therefore I consider that it is exhausted, and the material now lying on the banks is notiferous - On the higher banks it

is not Oriferous, because they come up to the rim, they have washed pretty well up to the rim.

Q I mean in so far as the pebbles and rocks are concerned?

A There was not the same face presented there as there was in 1870 because it has been washed away and does not exist.

Q Unquestionably the material actually washed away was the same but they have banks there where that material originally stood, they have washed that away, now then why is it that the material is not the same and does not present the same appearance (that the material washed away from the same plane presented)?

A Because they have washed over against the rim until they have reached a point where the ground ceased to be profitable, it is not ^{auriferous} ~~Oriferous~~ in its character

Q Are there more or less boulders and rocks left in the standing banks than there were in the original soil there?

A There are boulders in the bottom now, in the lower stratum

Q I know, but I do not ask you about the lower stratum, I ask you about the sides that are left from which this upper wash was taken on each side of the big pit for instance. A They have reached the point where it is not profitable to mine in surface any more sir

Q That is the kind of dirt that ^{was} washed is it not from the upper washings? <Box No 3>

A Yes sir

Q Now then that was washed and a bank was left standing against which that dirt originally stood was it not?

A Yes sir

Q There is some of it still left there is there not?

A There is material that is similar to that, yes sir

Q How much? A Oh in feet, do you mean in thickness?

Yes sir

A Oh there is probably something like 50 feet of this nature of material left standing against the rim there

Q 60 feet in thickness? How does that 60 feet in thickness compare in its appearance in its boulders, in its weight and in its rocks to the material that was washed out in the upper bench, that that is left standing?

A The difference was that in the material that was washed out there was more quartz. There were more pebbles of quartz than there is in this

Q There was more rock there then? A Not necessarily rock

Quartz is rock is it not? A Yes sir its

proportion would be - I should judge undoubtedly by feeling it that there was a greater amount of quartz ^{Quartz}. And a greater amount of rock

Q Well quartz, it is more in the nature of that?

<referring>

Q Well I ask you about the weight of the material whether or not there was not a greater amount of rock than there is left in the banks that are standing - I mean those banks?

Q In the centre of the Channel there was more rock

Q Than there was on the sides? A Than there was on the sides

Q And some of those rocks were pretty large? A Not very large at that time

Q Well some of them were as large as your head?

A Not at that time

Q None at all? A No sir it was not a common thing

Q Not one in that whole upper washing?

A Well there might have been one or more but it is not common. Coarse rock was an exception there.

Q I have here something by which I can make you understand me more thoroughly (pencil sketch). The side to which I had reference is the side against which the original upper washings stood. Now I want to know how the formation represented there by the amount of material left, compare in its boulders and rocks to the dirt that was washed out of the upper washings? A In the upper washings this formation which has been removed here is composed of impure quartz in fine pebbles and not in large stones. When you come up higher against this face now you are coming in the rim rocks and you

Come up here to the unproductive non-auriferous dirt, that is the presentation now and there is not a resemblance between the present bank and the early benches that I saw worked.

Q Now why, in what respect does this present bank differ from the early washings? A Because there was more quartz gravel in the early washings.

Q And was there more rock in the early washings?

A There was more quartz gravel but there was no large rock in the early washings.

Q I did not ask about large rock. I ask if there was more rock in the early washings than is shown by the bank?

A There was more material what you would call quartz if you want to get at that definition, there was more quartz, more quartz gravel.

Q Was there more rock
without taking into considera-
tion the different kinds of
rock, more or less rock
than there is presented
here? A Rock is an

indefinite expression. There
were more quartz pebbles

Q Well it is not an indefinite
expression, rock means rock
I want to know whether there
was more rock than there
is now at the bank - rock
comprises all kinds of
rocks I suppose?

A With the qualification
that I will make I will
say there was more rock

Q Well I ask you whether
or not there was or was not
more rock, without quali-
fication? A Express ^{with the qualification and} I think
ought to be permitted to

Q Answer the question
whether there was or was
not more rock without any
qualification

Mr. Wible It seems to me

that question has been thoroughly answered and the witness has a right to qualify

Mr Start I want to know if there was more rock. I don't care anything if they were quartz rock or blue gravel

The Court I suppose the answer is equivalent to saying that there was but it was quartz whatever that may be

Mr Start She did not say that. Our object is to ascertain that fact at this time and we have a purpose in ascertaining it

The Court Was there or was there not more rock taking all sorts of rock together? Was there was more rock in the centre of the channel?

Mr Start How much more rock in proportion than is shown on the sides?

Qwell I could not definitely

state that there was more
 Owell was there twice as
 much in proportion?

Mr Belcher I object to that
 as not cross examination
The Court I think you
 asked him as to the
 material of the early
 washings

Mr Hart Was there twice
 as much in proportion?

A well there was very
 near it sir.

Q What was the depth of
 that red soil?

A The red soil had been
 worked off before I came
 there

Q What is the depth of
 the bank where the trees
 are growing now down to
 the bench which you call
 the blue gravel?

A I estimated the depth
 at about 200 feet taking
 the gutter of the channel
 from the original surface
 O But going down simply

to the bottom of the upper red washings, the upper washings, not taking in the pit of the Gold Run mine? A Well the mould material was worked off before I went there.

Q Well what is the depth of that bank?

A Are you talking down to the bottom of the pit now? Q Yes sir.

A Talking down to what you call the upper washings that line?

Q Yes sir. A Well sir, those early benches they must have been 100 feet in height less than 100 feet.

Q What is the depth of that bank on the East rim?

A The East rim — I am more familiar with the West rim.

Q Well, on the West rim?

A On the West rim it is about 100 feet.

Q And on the East rim

you do not know?

A I do not know the exact rim, it would not be quite so high

Q Well what would you say would be its height? - Which do you call the East side, the fold Run side or the other?

A The Canon Creek side as distinguished from Indiana Hill?

Q The Canon Creek side as distinguished from Indiana Hill?

A Yes sir

Q How deep was the soil that you call loam?

A How deep was it Sir?

Q Yes sir A It was washed out before I went there - It presented on the rims - well I would have to go back a great many years of recollection - I would say that what I would call loamy soil was about 10 to 15 feet in thickness

Q On the rim that is left now, is it in excess of 4 feet?

A At the present time?

A Yes, where the trees were growing? A On the Indiana Hill, on the West side it is in excess of that

Q How much? A Well probably 10 feet.

Q You think it is 10 feet deep on the West side?

A Yes sir

Q How deep on the East side? A Well it is not so deep there

Q About 4 feet there is it not? A Yes sir it is nearer 4 feet

Q And under that, that loamy soil that you spoke of was the red soil?

A Yes sir it was the red soil

Q Under that was gravel?

A Under that came various forms of gravel lying against the bank

Q Which you said was impacted closely together?

A I referred to the bottom when I spoke of anything being impacted. It is quite loose material, very easily moved

Q But it was gravel nevertheless? A Oh yes there was gravel there but it has been washed out

Q Well it was so well packed together and so firm that the banks of the original washings have stood the test for a great many years haven't they?

A I do not remember the banks, the boundaries of the claim, they have washed a good deal since I was there. I visited the claim about once a year

Q But take the whole Gold Run pit, the banks have stood it haven't they?

A They are the boundary lines left there between the claims

Q If the gravel had been

so loose as you describe it
would have fallen out
wouldn't it?

Ans Sir

Q Fallen out those banks -
the rains would have beaten
them out? Ans Sir

not necessarily. It would
stand there for a very long
time

Q Upon which it would?

Ans Sir

Q The washings of the water
falling down over those banks
would not that beat it out?

A There is very little washing
coming down over the bank

Q Is there any snow up
there? Ans Sir

Q Does it send any volume
of water over those banks?

Ans Sir it percolates
down over the banks

Q It would be very likely
to wash those banks out
unless they had something -

A (unt's) It would take
something with it - it

would take some material
with it of course

Q It has not done so has it?

A Undoubtedly it must
have taken some material
Q Well have you noticed
to see whether it has,
whether or not those banks
are perfectly vertical now?

A They never were vertical
They are on a slope just as
I found them

Q Sloping which way?

A Sloping towards the
rim, towards the East on
the Canon Creek side

Q How much say?

A Well I should say it
was at an angle of 30
degrees

Q Can you walk down
them? A Well, it is
pretty tiresome to climb up
them

Q Could you walk down them?

A No sir

Q You would break your
neck if you would get

on the side of them.

A There are places

Quell almost any places.
Do not that a fact?

A No sir you can walk down generally by sidling a little

Q Generally you can walk down. A By sidling yes.

Mr Belcher I object to that as not cross examination.

Mr Stark I was asking him whether or not if that material was close and compact it would not have been washed out, had it not been so, or caved in.

Mr Belcher The thing that struck me was the question of whether a man would not break his neck coming down.

Mr Stark That was to ascertain whether or not the banks are vertical, and if vertical whether or not the sewage water coming through it is the water that percolates

17647

through that he described
would not wash that material
out

Mr Belcher He did not pay
percolation

Mr Hart He did use that
word percolation

< Testimony is read >

Mr Hart Are there any figures
representing a cone or some
thing like a cone, something
like the figure I show you
< pencil sketch > of dirt
standing up in the mine

< Objected to as not cross
examination >

Mr Belcher If there are pillars
or cones there let them stand
and we say that it is not
any of his business with
this witness

The Court go on.

Mr Hart < ant's? > Anything like
that? Oyes sir they
are left as boundaries
between the claims

@ How high? A well I
have never measured them but

I should judge some were 100 feet high

Q How broad on top?

A Probably a diameter of 30 or 40 feet

Q Some 20 feet are they not? Ayes sir 20 feet there are such

Q Trees on top of them?

A I think not. I don't remember any with trees on top of them — some shrubs

Q Is that a pretty good shape of one of those things? <referring to sketch>

Ayes sir that is very fair

Q What is the width of the base of those pillars?

A The width of the base of those pillars would ~~be~~ be probably from 60 to 100 feet.

Q Could you walk up and down those? Ans sir I would not.

Q What degree do you think those run up?

Mr Belcher, I object to that as not cross examination or anything approaching it. Mr Hart I think it shows the nature of that material. The Court It may not be very important but it shows the consistency of the bank; they claim that it represents the quality of the soil that was there and that has been washed out.

Mr Hart How long have those things been standing according to your knowledge? A There were pillars there to my knowledge as early as 1870.

Q And they are still standing? A I cannot say that those identical pillars are still standing but there are similar pillars.

Q Do you know whether they are the same or not?

A I do not know positively whether they are the same or not.

Q They are composed of this last gravel that you spoke of?

A They are composed of the natural material there in the centre of the channel. You have been questioning me on the rim, these are in the centre.

Q Those are in the centre?

A Yes

Q And they are composed of the same material as that which is washed out originally?

A They are composed of the same kind of material. They are a good representation of what the original ground was in the centre of the channel.

Q How far are they from the Indiana pit?

A Those pillars?

A Yes sir?

Atwell There was quite a number of them extending for a distance of say 2 miles from the Gold Run claim up in the

direction of Dutch Flat up
toward the railroad,
quite a number of them were
left there

Q Are they all of the same
general character in all of them?

A There is very little differ-
ence in them sir, not such
a strong difference as would
be marked

Q Now beneath this loamy
material, this soil, what
was the color of the
gravel? A It was usually
of a reddish color

Q Reddish? A Yes sir

Q How far down was it of
a reddish color?

A The line of blue, I
don't think would come in
until you got within ~~30~~ ^{30 or 40}
feet of the bed rock

Q Until you get within 30
feet of the bed rock?

A Yes sir

Q The balance of the material
gradually leaves the reddish
color and becomes yellowish

in color does it not?

Abell yes, there is a shade between red and yellow until it gets down to the blue

Q Nearer the color of this map? <referring>

A There is material of that color; that would be nearer the surface

Q That is all the way down from the top washings to a point within 30 feet of the bed rock? Ayes is there is quite a distinction in the different strata, there is a marked distinction appears to the eye

Q Well I say this variation or change in color from red at the top down to the color say of a postal card runs to a point within 30 feet of the bed rock at which point you reach what you call blue gravel on account of its blue surface?

Ayes is there is a line

of discoloration there

Q That is about 30 feet from the bed rock?

A Yes sir about 30 feet to my recollection

Q After you reach that point 30 feet from the bed rock that material is generally of this color is it not? (No 1.)

A Generally of that character
Yes sir

Q Harder as you approach the bed rock? A Correct sir

Q And softer as you go up? A Softer as you go up

Q Now the material immediately above this blue material is more of the color of box No. 2. is it not? There are the shades of color. Boxes No 2 and 3 represent the general ^{shades of} color until you get down to the genuine blue gravel?

A I think you are right. I think that shade will come in above (referring) There would be some more of a gradation

There is a great contrast there

Q And the contrast would run say from the top of that blue gravel on up towards the top of the pit?

A It would

Q Is or is not that a fair representative in color and general appearance above the blue gravel < No 2 >

A I have seen a great deal of gravel similar to that.

Q Along the banks of the present pit of the Gold Run mine? A Yes Sir

Q Where they are mining now? A Yes Sir of this material < referring >

Q How much of that kind of material < No 2 > in the pit in the present pit?

A What there is left lays against the rim or the present bank there is but very little of it in bulk. It lays against the bank they have washed it away

They have washed up to it.

Q But I mean the material 20 feet above? A Do you mean in absolute height, vertical height

Q Yes sir A The vertical height must be of that class of material 30 feet or more

Q How deep do you call this pit they are working now A The pit is I presume from the original surface -

Q Right? No no from the surface washings of this Company?

A The present washings of the Company?

Q The present washings of the Company A The present washings of the Company when I was there were confined to the lower bench

Q How deep was the pit from the bed rock?

A From the bed rock up to the original surface was

you mean from the bed rock
up to the original bench?

Q The bench that they are
working now?

A Well the bench that they
are working now and which
I consider to be the profitable
bench might be 60 feet thick.

Q 40 feet from the bed
rock to the top of this pit?

A Now to the top of the pit
I told you the top of the pit
was 180 feet.

Q The main pit they were
working? A The main pit
they were working I don't know.
They were not working when I
was there. I do not know.

Q But I mean the pit—
first, as I understand it, the
surface was washed off
by what you call the first
bench. A Yes precisely.

Q Now commencing from the
point at which they com-
menced working their first
bench and running down
to the bed rock, how far

is that? A. after working
off the first bench

Q. Yes sir? a well I should
say it was about 100 feet
Q. 100 feet? A. Yes sir

Q. and all over thirty feet
from that bed rock is a
varying color from blue
gravel to this (referring)

A. Yes sir there is a change
in the color.

Q. And the change as I
understand ~~gives~~ ^{gives} it the bit
the color of a postal card
above this run or this stratum
of blue gravel that you
say is thirty feet deep.

A. Yes sir there is a dis-
tinction

Q. It is about the color
of a postal card is it not?

A. That is near enough
description there is a distinc-
tion

Q. Of what is that material
composed that you get
above the blue gravel,
this thirty foot stratum

A. These rock seem to be somewhat different in their character (Number two)

The Court He did not ask you about that particular sample he is asking you about the mine if you think that is a fair sample that is all right but he asked you about the mine

Mr Hart He was examining this to see how it compared with this. (referring)

A. Well the material is softer and more easily disintegrated.

A. Then this A. Yes yes much more so than that

Q. How is it about this (no 2) Is that the same general kind as is above the blue gravel.

A. Yes sir I should judge it to be a fair sample from my recollection

Q. How many feet should you say there was of that in the top pit between the

blue gravel and the surface washings

A. Well I did not observe it sir I did not make any critical examination of that sand 1870. I was there last October.

Q. You noticed that was the color but did not make any estimate of the distance A. No sir I did not. I did not examine it critically at all. I did not go there for that purpose

Q. There is a very weathy fine ~~mine~~ well defined mark I understand you but between this material (No 1), what is called a blue gravel and the other yellow material? A. Yes sir.

Q. Does that run on an even grade around the pit?

A. It did not run on an even grade

Q. How does it run?

A. The grade is variable. It is not absolutely an

even grade it is variable

Q. Some places? A. Some places the depth of this

material would be greater

Q. Greater than thirty feet?

A. Well I do not know whether it greater than thirty feet,

Q. Will some places it would not be greater than 6 feet would it?

A. Well perhaps ten or twelve feet

Q. Ten or twelve you would put the minimum and what would you put it at the largest depth

A. I put it at about 40 feet

Q. forty feet as the largest

A. Yes sir

Q. And that makes your estimate of an average of about thirty feet

A. Yes sir from memory with out ~~measuring~~ measuring it

Q. The density which which the rocks are packed as I understand you depends upon the depth as you

Go down, the rocks keep getting more closely packed together.

A. Yes sir more in the nature of this material here (showing)

Q. Do you know the reason of that, A. Well it is

cemented — I know the reason simply as scientists have settled it, it is cemented by material carrying iron solution — The oxide of iron forms a chemical ~~on~~ cementing material

Q. Well that refers to the blue gravel?

A. Yes sir

Q. That is the only part that is cemented is it not?

A. ^{Yes sir} Very strongly cemented

A. But why is it that the other gravel is more closely packed above that as you go down towards the blue gravel line

A. Because it is packed mechanically and the other is cemented chemically, the bottom is cemented chemically.

The weight of the material above determines that to some extent its compactness as you go down

A. You say and the water of course that percolated through here carrying the iron in solution which was proven to be in this matter has been cemented it

Q. You say you know the relative density of an inch of water. That is when you speak of relative density I suppose you used that with reference to the character of the material that is to be washed

A. I used it in that connection

A. Now what would be its relative density taking into consideration the blue gravel and the material above that up to the rim of the first washings, that is up to the rim left by the first washings

A. Well, whenever the material moves in early times.

Q. That part I care nothing about I want the portion remaining to be removed the yellow material or the blue gravel? A. I saw but very little of the yellow material that remained to be washed remaining at the Gold Run mine at the time I was there.

Q. Of the yellow material

A. Yes sir

Q. I understood you to testify that the yellow material above the Blue gravel which is only thirty feet in depth, the material is of a yellow character

A. Yes sir

Q. Well now of course they have got to move that upper yellow character above the 30 feet before they move the blue gravel wouldnt they? A. Well the point that I saw they

could work off a bunch of this blue gravel without disturbing the material above it because I did not think the material above it was profitable, at least in the slope.

Q. They had got it off one bunch but they would have to commence drilling under there to get it all out?

A. Undoubtedly, they were approaching on the iron rock, they were getting pretty near the iron rock where I saw them.

Q. They have to wash out the yellow material because it is on top in order to get at the balance?

A. Not for some time to come. They had quite a bunch of that blue material.

Q. When they had washed of the yellow? A. Yes
 in they had washed it off in former times

Q. How large was that bench
how wide

A. Well it extended along
the margin of the pit for
several hundred feet to my
knowledge. I did not ex-
amine it critically

Q. And all that ungained
to be washed of the blue
gravel that you noticed
there where they were then
washing was 30 feet in
height?

A. It would
be about 30 or 40 feet in
height of that character
of material. (No 1)

Q. That is the blue gravel?

A. Yes sir that laid on the
bed rock

Q. That is the blue gravel
proper? A. That is the
blue gravel proper and a
very good sample of it

Q. And the other above that
is of a different color

A. Yes sir it passes through
different phases.

Q. I want to know what

would be the comparative density of water on the material above and the material known as the blue gravel proper?

A. The force of water would be very much more effective on the material above, that is what you call number two, that would be very much more effective than it would on that. (No 1). The proportion of it I should say was about four to one, it would be three times anyway.

Q. What would be the duty on the lower stratum?

A. Oh I never saw a head of water against it I do not think I could answer that question. I have got

Q. I have my own opinion about it, I do not know but if you insist on an answer I can tell you

Q. You do not think you are an expert on that question proposition,

A. I am but I say not from my personal knowledge because I did not run the water I know what it ought to do because I know what it has done under other conditions and under other circumstances.

Q. What ought it to do?

A. It ought to move about two cubic yards.

Q. And of the other material four times as much?

A. Yes sir I think so.

Q. Then taking the full depth of the bank there what would be the duty running clear up to the rim of the first washings?

A. Possibly it might move about six cubic yards to the miners men taking it all.

Q. The average? A. Yes sir five or six.

Q. How much of that bank down in the pit then and you notice that required

blasting? A. I did not look at it with a view of ascertaining sir

Q. Will it would be no more than thirty feet do you think? A. No I think you would have to shake the whole ground up of course

Q. Well of course shaking up the ground assists the ^{weighing} shaking up of the ^{any kind} ground of material A. Yes sir.

Q. The miners have changed their grade you say since 1865, the grade of water

A. Yes sir the have changed the flume, they run on latter grade

Q. Why is that

A. Well the find it convenient for saving gold, they can do better on lighter grade. Every miner has his own notion about it, no two of them agree.

Q. Do you know the reason why they can save the gold

better? A. No I do not know any particular reason, they have had their changed, they used to run off a great deal of dirt, they do not run as much dirt now.

Q. The greater the grade the more material they can run?

A. The more material would be run off.

Q. If you wanted to run off very heavy material you would run a heavy grade wouldn't you? A. a steep grade?

Q. Yes sir.

A. Well that would depend on the character of the material.

Q. Will if it was very heavy material like that for instance of the Polar Star mine of Dutch Flat?

A. I do not know what their grade is there. They have a great deal of heavy material but they raise it with derricks, they handle

their material with derricks

Q. What is the reason of that?

A. It is heavy material that they do not wash out through their flumes.

Q. They do not wash it?

A. No sir large boulders they take them up by a derrick and they place them in some portion of the pit that has been worked out and retain them there, they do not leave.

Q. They put them in the river with derricks to float them?

A. No sir I never saw any rocks put in the river with derricks.

Q. Do you know whether they do or not?

A. I do not know that they do.

Q. You do not know that they do not?

A. No sir.

Q. When you said in your examination in chief that the banks that you noticed upon the visiting the gold Run mines in October showed heavy blue gravel, hard

concract cemented gravel you referred to this thirty feet of thickness from the bed rock didn't you?

A. Yes sir that was about my observation.

Q. You work on finding your answer then to that lower blue gravel copper

A. Yes sir.

Q. This is about thirty feet

A. Yes sir just the point of the pit I was in

Q. Speaking of the dump of this mine what do you mean by saying that the final dump is in the North fork of the American River

A. Because everything all material that passes from the mine must reach it - must reach the North fork through Canyon Creek

Q. Will the dump in fact is into Canyon Creek

A. The direct dump is into Canyon Creek.

Q. And the point to which

it will eventually go you call
the final dump?

A. Yes sir.

Q. Because that is the final
resting place? A. Yes sir.

Q. The dump of that portion
of the pit which would
go down the river, such as
the sand from here for in-
stance (referring) would be
the Sacramento River - if
it ever got there.

A. Yes sir, if it ever got
there, if eventually reached
the Sacramento River, if it
was ever transported that
far.

A. In that sense you would
speak of Sacramento as the
dump.

A. In that
sense you might extend it
indefinitely.

A. What did you speak of
when you estimated the
float character I believe
was the expression used of
material worked since 1876

A. I did not speak of the

float character of the material worked since 1876; I simply spoke of the experiment I have made by agitating this material in the bottle and ascertaining how much of it would be held in suspension. I do not refer to anything since 1876

Q. That was the question propounded by Mr Dibble and probably you did not understand it.

A. I have to correct it

Q. Mr Dibble referred to the float character I think was the word he used of the material worked since 1876 and to be worked. You did not mean that did you

A. I stated in response to that question that I had made some experiments in the sands that I had taken from the mine; that I had made that personally myself, and that was the only statement that I made

about it,

Q. How did you make those experiments?

A. I agitated it in a flask of water and poured off the material and weighed what was remaining. In the first place I weighed the material before putting it in the flask; I added water to it and agitated it and then weighed the residue and found out what the loss was by violent agitation in the water.

Q. What you mean is that there is only about seven and a half per cent that would float in still water.

A. The water was in agitation.

Q. How much agitation?

A. Agitated as violently as you could agitate a flask, a long flask.

Q. Would not the sand shake up and down.

7675 A. The sand did shake up

and down.

Q. You say you shook this bottle you had as hard as you could? A. Yes sir.

Q. And it would not shake the sand from the bottom.

A. Oh yes the sands were undoubtedly agitated and then I poured off the material that was left in the water and then weighed the residue in order to ascertain what was the amount in floatation and the character of the sand that remained.

Q. Will you find that there was seven and a half per cent of what

A. Of material that was in floatation through that agitation of the water.

Q. Well when you were agitating this bottle it was all floating in some way or other was it not?

A. It was agitated in the water yes sir but a great

deal of the material was quite heavy - a great deal of the material

Q. When you let the bottle rest again the sand dropped to the bottom.

A. I poured off whatever was in the water

Q. When you let the bottle rest again the dropped to the bottom didn't it

A. I did not let it rest; I poured it off while it was in agitation and the heavier sand went to the bottom of course

Q. Now I want to see if I understand you; do I understand you that you shook that bottle and could not shake the sand up at all

A. Yes I shook them up

Q. And then you poured them out and the heavy sand went to the bottom

A. I poured out what would go out with the water after the agitation

whatever would go out with the water

Q. How did you pour it out of the bottle, - didn't you turn the bottle up?

A. Yes sir I turned the bottle until I poured the dirty muddy water, I poured that out

Q. Did the sand stay at the bottom?

A. Yes sir the sand remained behind

Q. It stayed up at the bottom. The result of that was that the sand would float to the top of the water after you turned the bottle up

A. The material held in flotation was very fine material, material that in agitation in the bottle was held in suspension in the water and the sand naturally fell back

Q. And that was the way you determined the amount of float character of the material worked?

a. I did that for my own instruction and information

Q. Will I say that was the way you did it

a. That is one of the ways which I did it

Q. Will you do it in any other way? a. as

I told you it determined this specific gravity of this material that is all

Q. What was it that you were weighing, some of this sand that is made of this stuff Number one,

a. Yes sir.

Q. Coming out of the blue gravel

a. Yes sir it is what I found on the bed rock and it was very much in the nature of that sand, (referring)

Q. Of this sand here?

a. Yes sir very much in the nature of that

Q. After it is pulverized

a. Yes sir it would be

very much in the nature of that
I think it would be very
similar to it.

Q. You testified in relation
to the identity of sands or
the failure of identity, the
lack of identity of the sands
of the Gold Run and the
sands of the several bottles
and you not? A. I did
say that there was

Q. Will you testify that
there is not some of the sand
of the Gold Run mine in that
specimen? A. I will not
say (no 6)

Q. Will you testify that
there is not some of the
sand of the Gold Run in
that specimen that is sand
found in the bank between
the old and new mouth
of the American River -
I ask you if you will
testify that there is not
any of the sand of the
Gold Run mine in exhibit
number six - he says he

will not

Mr Bulcher If he desires to make an explanation

A. Well sir I will testify according to my belief from experience that these sands do not come from the Gold Run mine

Mr Hart. Will you testify according to your belief from experience that there is not some of the Gold Run mine sand in that specimen? ~~may~~ A. In my belief there is not any

Q. Will sir what kind of sand are there in this specimen? A. There is

a good deal of mica

A. Will? A. There is quartz

Q. Will? A. Probably some fels par

A. Will? A. Will it is granitic rock.

Q. Is there any iron

A. Yes sir there is iron

Q. Will is that all?

A. These are the main constituents of that bottle that you have there

Q. Is that any quartz sand that comes from the Gold Run mine? A. Yes sir

Q. Will you testify that the quartz sand that is in this bottle did not come from the Gold Run mine in your belief?

A. I do not believe that a grain of that comes from the Gold Run mine

Q. Why can you identify one quartz sand from another quartz sand?

A. No sir and that is why I testify from belief

Q. Well then this is a guess

A. No sir this is not a guess, it is founded on experience

Q. Is there anything in your ^{experience} appearance that will enable you to testify even to belief that, that quartz sand contained in

that bottle is not the quartz
sand that comes from the
Gold Run mine, and if
there is tell us what the
ground of that belief is
and the experience.

A. My ground of belief is this
that the constituents of the
material of that bottle are
different from the consti-
tuents from the material
found at the Gold Run
mine in the first place,
in the next place the
point is so far distant
that it don't seem reason-
able to suppose that it could
reach here, and again the
matter is lodged and
impacted in that immense
canyon below.

Mr Hart I move to strike
that answer out as not respon-
sive.

The Court You asked the
witness his reason for
thinking so and he is
giving it. The motion to

~~See end of his testimony~~

strike out is refused
 Mr Hart Now an exception
 "The last question is read"
 Mr Hart I withdraw that
 question.

Mr Belcher I object to
 withdrawing the question
 The Court Let the question
 and answer be stricken out

Mr Belcher we reserve an
 exception to striking it out
 Mr Hart Can you take a
 specimen of coarse sand
 and from the mere inspec-
 tion of that quartz sand
 tell whether or not it
 came or did not come
 from a particular mine
 from which quartz sand
 does come? A. No sir

Q. You cannot? A. No
 Sir

Q. Can you take this sand
 that I hold in my hand
 containing quartz sand and
 testify from a mere in-
 spection of this sand
 whether or not a portion of

it came from the Gold River mine?

A. As to a portion I would say that I cannot testify, but as to the aggregate I would say most decidedly I can. Q. I did not ask you about that, we do not claim that it all came from one mine; can you testify from a mere inspection of this sand that it did or did not come from all the mines on the American River combined.

A. The aggregate of it did not come from mining, it is not mining sand.

Q. In the aggregate?

A. Yes sir some portion of its constituents or component parts are the same as come from mines, there is quartz.

Q. But the great majority of those parts are the same as come from mines.

2085

A. The great majority is

quartzose material, there is a rock there that don't occur in the gold run mines, that is mica, and that I know where that comes from

Q. You know where mica comes from? A. Yes

or I know very well where it comes from

Q. Is not mica to be found in the pipe clay contained in these mines, in the Gold Run mines

A. I have ~~not~~ seen any mica in the pipe clay

Q. I ask you now whether or not mica is contained in the pipe clay that comes from the Gold Run mine

"Objected to as not cross examination"

Mr Belcher it is in proof that there is no pipe clay in the part of the mine that they are now asking about

The witness. I have not observed any in

My Hart Will you swear that there is not any there?

A. I will state that I have not observed any

Q. Can you swear that there is not any there?

A. I have not observed any there. I have not been there and I will not swear to anything that I have not made a specific and careful examination of

Q. That you have not done

A. I did not look into those pipe clay samples

Q. Can you from the mere fact of the existence of mica at any point or at any place testify that the balance of the material in which that mica is found came from the same place from which the mica came? A. I can

Q. You can testify that it all came from the same place

A. Well when I say it all came I know that mica

is a component part of granitic rocks, granite is composed mainly of quartz feldspar and mica and therefore if you get those three almost together in sands,

I believe that it came from a granitic country or that disintegration of a granitic country.

Q. Simply from the existence of mica. A. Of those three minerals combined and presented together in the same proportion.

Recess until
2. P. M.

(see p 7812)

In the Superior Court
of the State of California
and for the County of
Sacramento

The People of the State
of California
vs.
The Good Run Ditch
and Mining Company

Afternoon Session
Thursday
Dec. 22nd / 81

Transcript of Testimony
Vol.

Index

Morse, O. N.	Direct	7689
	Cross	7704
Skidmore, W. A.	Cross Resumed	7721
	Re Direct	7744
Anderson, Hartford	Direct	7755
	Cross	7779
Mc Beth, John	Direct	7797
	Cross	7808

Winifred J. Davis
Official Reporter

Testimony }
 of } Afternoon
 O. M. Morse } Session
 Thursday Dec 22/81
 Called for Defendants } Sworn

Mr. Catlin When did you first come to California?

A I came here in 49

Q State whether you were here as early as January 30, and if so what time did you arrive in the City?

A I arrived in Sacramento the second day of January 30. I arrived here in the first place Seventeenth of October 49.

Q When you arrived here in October 49 where did you go?

A I went to the mines

Q When did you come back to Sacramento

A I left the mines the first of January 50

Q And arrived in this City on what day?

A On the second day of January 50.

Q State what occurred on that day or the following day with reference to flood?

A The night of the second of January the city was flooded, it was commonly called the 29 flood but it was in the second day of January 50 or the night of the second. Q Where were you that night, the night of the second?

A I was stopping at McKnight's Hotel on K Street. Mr Cadwallader mention the place?

A At McKnight's Hotel between second and third streets on K, any one who was here at that time, in 49 remembers the sign, "Rest for the weary and storage for trunks" Over the Hotel door.

Mr Collins on K between
second and third streets
A Yes.

Q On which side of the
street

A On the south side of
the street

Q State to what extent
the city was flooded at
that time?

A Well it was flooded
to that extent that I
ran a boat all over
the city with exception of
a small place where
the public square was
- Out of water.

Q You stopped that night
you say at that Hotel
on the south side of K.
Street between second and
third. What did you find
on the following morning?

A I found about two feet
of water in the room I
was sleeping in.

Q What did you do then?

A I got out to the door

As well as I could and
hired a boat that was
going down street and
went down to the Sutter
Hotel and got my breakfast.

That was the only hotel
there was out of water.
Q Then what did you do?

A I made my way over
on the River bank, there
was a ship lying there
that had a yawl boat
and I bought the yawl
boat.

Q What did you do with
the yawl boat?

A I got it inside of the
River banks and went
to boating.

Q How did you get it
inside of the River banks?

A I floated it down stream
a little way to where there
was a low place on the
bank - a sort of slough -
not exactly a slough
but a low place where
the water was running from

the Sacramento River in
over the banks into the
City.

Q How far down below
K Street was that?

A I should not judge
it was more than a
block below. I do not
recollect exactly the point.
it was a short distance
below.

Q Were you alone or did
you have any one with
you?

A I had a partner, a
man with me.

Q After pulling your boat
into the City where did
you go?

A In the first place we
heard a Bell ringing
up town pretty lively and
we pulled for that Bell
and found it was a
Church Bell on a small
Church. I think on Tenth
Street, up I should judge.
I do not know exactly -

Somewhere near where the
Capitol now stands or in
that neighborhood, we there
found six men who wanted
to get out of town.

Q Where were they?

A They were in the Church
there was water enough
around the Church so it
floated this yawl board
Q Stole what you did.
did you take those men
out of town and if so
how?

A In the first place we
charged them an ounce
a piece to take them over
to Sutters Fort, they did
not like to pay that and
we started off. after we
had gone a little way
they hailed us and told
us to come back. and
we pulled them over to
the fort or over to the
high land.

Q Over to the Fort?

A Yes Over to Sutters Fort,

Or to high land near the fort.

Q Stole how long the water continued in that condition and how long you were engaged with your boat?

A I Judge it was somewhere near a week or ten days that we were boating the water did not remain up all over the City though that length of time, it went down somewhat in two or three days.

Q Stole what occupation you were engaged in during that week or ten days?

A We were boating. Carrying passengers from one place to another. Moving goods, picking up loose goods in the way of barrels of liquor and pork that had floated down into the slough and towing them up on high

land.

Q What was the general depth of the water say on K. L. and J streets and the cross streets?
 A I said it was two feet in the room I was sleeping in at McKnight's Hotel. I do not know the general depth of the water. it was enough to float a yawl boat with several persons in it. we would once and a while strike a little bar where we would have to jump our like enough to help the boat over a little, but there were deeper places, sloughs that were much deeper than that.

Q Where were those sloughs?

A There was a deep slough on K. street between front and second. I do not know as I

Could designate, where all the sloughs were but I recollect there was one there.

Q State how long you remained in the city then and state whether there were any other floods that winter?

A I remained in the city steadily until about the first of April. in March there was another rise of water, not as extensive though as the one in January! but there was considerable water came in, in March.

Q To what extent did it affect this place on K Street, this McKnight Hotel?

A Well it affected it in this way, After the water went down in January Stevens and myself rented the place and opened a Restaurant there and ran

is for six weeks or two months I suppose and when the second flood was it shut us off so we had to close our business although there was not water enough in K street to float a boat at the second flood.
 Q And not enough the second flood?

A Not enough in K Street, nor at that point.

Q Did it come up into the Hotel?

A How?

Q State with reference to the place you rented, you say you rented this place?

A Yes.

Q You say you had to close up, state why you closed up?

A On account of the water coming into the City so it shut our business off, we had

not business enough so we
could afford to keep open
it did not come into our
house in march but it
flooded the city somewhat
so that there was not
enough business to
justify us in keeping
open.

Q. Do you know where the water came from when the city was flooded on the second of January; in which direction it entered the city is

A. It came from the American River. The first water that came in came from the American River but before it had raised up level with the Sacramento the water from the Sacramento had raised and was pouring over the bank of the river which was higher than the balance of the city. There were places along the bank of the river higher than the balance of the city. But the water first came in from the American river.

Q. Do you recollect how it was with the second flood which occurred in March?

A. I think that came from the American too if I mistake not

Q. State how long a period that flood affected the city

trance into the City by the roads
 A. It affected it very materially
 from the time it was first flood-
 ed on the second of January
 until after the March flood,
 although after the first flood
 subsided teams could get
 in from the Country. But
 the roads were very bad.

There was no water to prevent
 any one from coming in after
 the flood had subsided

Q. State whether or not you
 were engaged in the business
 of transporting passengers after
 the March flood, after you had
 quit the restaurant business?
 State whether you went into
 any business connected with
 the transportation of passengers
 or freight from the City; and
 if so where your transporta-
 tion line ended and where
 it commenced

A After we closed the restau-
 rant I hired out to drive
 Brown Coover & Co. and they
 were freighting. It was along

in April sometime but I cannot tell just when. The first trip that I went out I know that we could not load there at the ware house a full load, so I took a part of the load on my team and they sent another team out to finish out the load after we got out to the fort or out to high lands. We did not load a full load to take out into the country, at their ware house Q. Were you connected with any stage line that spring A. Not at that time. That was the Spring 1850

Q. State what communication there was between the front part of the city and the high land back to the fort, or ridge?

A. At the time of the flood there was no way except going in boats and skiffs.

Q. Up to how long a period did that continue that spring

Mr Cadwalader We object to that question as leading.

Mr Catlin Up to how late a period did it continue

A. Do you mean, did it continue so we had to go in boats

Q. No. How late was the entrance in to the city by the road obstructed by the flood?

A. By being very muddy and miry - miry places - it was obstructed until into April. But not by water, only by the muddy roads. There were only a few days that the water kept up so that we could run boats to run bo out to Sutters fort.

A. You ran boats as far as Sutters Fort

A. We ran out to the high land there, as far as Sutters Fort. We ran out until we struck the slough and then we could run up the slough to the back part of

the Fort.

Q. Do you recollect the name of that slough that runs up by Sutters Fort?

A. I believe that is call Burns Slough.

Mr Cadwalader Had it any name then?

A. I do not think it had any name at that time. I do not recollect that it did. Mr Catlin But it was the same slough that is now called Burns Slough?

A. I think it is the same slough although it had no name that I know of. We called it the Slough out at the fort.

— " —

Cross Examination

O. N. Morse

Mr Cadwalader When did it commence raining in 1849?

A. I cannot tell you.

Q. I will ask you whether

is was not the thirty first day of October? a I could not say,

Q. I will ask you whether it did not rain continuously in the month of November

A. I think it did pretty much all the month of November; I think it rained

Q. I will ask you whether it did not rain continuously during the month December.

A. Well I could not say that it rained continuously, but there was a great deal of rain fell in November and December

Q. I will ask you whether it did not rain continuously during the month of January down to about the fourth of February.

A. No, I can answer that

Q. When did it quit.

A. Well I could not state just the day when it quit raining, but we had some pleasant weather in January

Q. Was that not in February

A. We had pleasant weather also in February?

Q. I will not ask you whether or not it rained continuously in the month of January

A. No it did not.

Q. I will ask you whether there were more than four days in January in which it did not rain?

A. I should judge that there were. I could not say positively but should judge there were

Q. Now you say it rained in November continuously

A. No I did not say so

Q. What did you say about it?

A. I said there was a good deal of rain fell in November and also in December.

Q. A great deal

A. Yes sir.

Q. Have you any recollection of any days in those months when it did not rain?

A. I could not name any particular day, I was mining all the time during the month of November and December and we mined whether it rained or not and we did not notice the rain falling on our heads very much.

Q. If you have no recollection of any pleasant days in those months have you

A. Oh yes; we had pleasant days.

Q. Now you say rain's produced an overflow of two feet when you were working on K street?

A. Yes.

Q. You were working in a one story house, canvas concern where you not

A. Yes.

Q. K street was in its natural condition then was it not?

A. Yes.

Q. When there was a slough there was a bridge over it?

A. No Sir not in all places.

Q. As a general thing the sloughs were bridged were they not?

A. No Sir very few of them.

There might have been a few sloughs that were

Q. They were not filled up were they.

A. No Sir

A. Now you say that the Plaza, referring I suppose to the Public square between ninth and tenth I and J. street was not under water during that flood.

A. I do.

Q. And you say the water remained off B street for two or three days.

A. No Sir I said about a week.

A. Just about a week

A. Some where about a week or ten days we were in the boat when we had to go into K street, some portions of it. There might have been some parts of K street -

Q. (Outg) How much did your yawl boat draw.

A. When it was loaded it drew two feet of water.

Q. How much lower was it situated than it is now?

A. Well I could not state that Mr Cadwalader, exactly.

Q. It must be about eleven feet?

A. It must be 10 or 11 feet whatever the streets have been filled in. I do not know what it is.

Q. The bank of the Sacramento was then out.

A. In places it was.

Q. But down at the steam boat landing it was out.

A. Yes sir there were places along the steamboat landing every little ways that the water would run over to in low places.

Q. You say the water was only running over the front

of the City at the Slough entrances of exits. I will ask you A. whether the water was running over in ^{any} places except at the slough entrances or exits.

A. Well it was not running over except in low places. I do not know if whether it was exactly a slough or low place on the bank of the river Q. at the low places?

A. Yes. I do not wish to be understood that the water did not raise above that height above two feet. I said that in the room where I was sleeping when I ~~woke~~ woke up in the morning there were two feet of water in it. The water had not got to its height then. How high it did get in that room I do not know for I never went back again Q. You think that it was

two feet on K street
 A. I think it would average about that
 of that would be the highest. That is any place back. I will ask you whether that was not about the deepest point on K street at any place between front street and Sutter Fort.

A. No Sir it was not the deepest point. It was about the shallowest. Two feet would be above the shallowest of any point.

Q. You recollect the route you took.

A. Nearly so. If I knew just the location of that little church I would know just the route I took. We took a straight shot to the Fort. There was nothing in the way - no building and no fences in the way.

Q. There were no houses then south of L Street

A. Very few

Q. There were hardly any

A. Very few. I do not know how many very few. The business was carried on in the city the same way during the flood as before.

Q. No in not exactly the same way, because teams used to come in before the flood

Q. Did not teams come in during the flood.

A. No in not until the water subsided

Q. Was not the navigation as we used to call it better in the city than it was in the foot hills.*

Was there not a harder bottom here than on the roads between here and the mountains.

A. Well it was about the same

Q. Will was not it better

A. No sir I do not think it was any better

Q. Was not the greater part of the transportation - was not it done almost exclusively that season of the year with pack animals?

A. No sir

Q. Not in January 1850

A. In January there was a great deal of it done

Q. There was no teaming during that winter

A. Yes. I came into the city after I went up to the mines, I came here in November with a team to get a load of goods

Q. Do you recollect the condition of the roads between here and Colona at that time in January 1850

A. No sir I did not travel that road

Q. You recollect what freight was then or staple

article

Objected to
Q. I will ask you whether
in January, 1850 freight to
any mining camp 50 miles
from Sacramento was
not about fifty cents a
pound

Objected to objection withdrawn
Q. What was the freight
from Sacramento to any
mining camp within 50
miles of Sacramento in 1850
on staple articles

A. Well I was not engaged
in the business in January
and I do not know exactly
what it was

Q. You cannot answer
that question?

A. No. March I know
what it was

Q. I did not ask you
about March. When
and the roads first be-
came passable inside of
the city and out that year
in 1850,

$$a^2 + 12a = 4$$

$$a = -\frac{1}{4} \pm \sqrt{4 + \frac{1}{16}}$$

$$\begin{array}{l} a+b+c+d \\ a+b+c+d \end{array} \left\{ \begin{array}{l} a+b+c = 8 \\ a^2+b = 4\frac{1}{2} \\ a^2+c = 9\frac{1}{2} \\ c-b = 5 \end{array} \right.$$



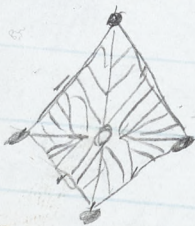
67 18.
California

A. Well outside of the city they were passable all the time because people passed.

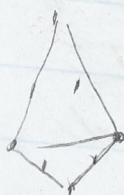
Q. I mean with teams. Well I will withdraw that question and put it this way: When did the rainy season end in 1850?

A. Well I cannot state that exactly. I know we had a pleasant month in February and a portion of February and in March we had another severe

Janua



Miss Pyle



Sac River

American

city

April

Q. Down past the first of April?

A. Yes. Down to May say.

Q. Now did it not rain more days in the rainy season than it has ever had since?

7715 A. Well I think it rained

A. Well outside of the city they were passable all the time because people passed.

Q. I mean with teams. Well I will withdraw that question and put it this way: When did the rainy season end in 1850?

A. Well I cannot state that exactly. I know we had a pleasant month in February and a portion of February and in March we had another severe rain and the roads were very bad again for that time on.

Q. Down to about the first of April?

A. Well past the first of April.

Q. Down past the first of April?

A. Yes. Down to May say.

Q. Now did it not rain more days in the rainy season than it has ever had since?

A. Well I think it rained

about as many that season as
any season after that.

Q. Did it not rain that winter
to double the number of days

A. No Sir. In 1862-3 when
I was up in the —

Q. (Outg) I am speaking of
down here in the Valley

A. Well that I cannot answer
I have not been
here all the time

A. I will ask you it in
this way. Did it not
rain every day in November.

Mr Belcher ~~He~~ has answered
that question

Mr Cadwalader Every
day in December every day
in January and every
day but twenty two in
February and twenty seven
days in March

Mr Belcher He has already
answered as to November
December and January

The Court He has already
answered that

Mr Cadwalader This question is more extended

The Court He said that it did not rain every day in November January or February. He has answered it.

Mr Cadwalader I will ask you whether it did not rain in February and March — You said in February except 22 days. That would leave six days in February.

Q. Seven? A. I should judge it rained five or six days in February although it was considered a very pleasant month.

Q. You say you found high land at the fort
A. Yes

Q. And you found deep water in the bays.

Now how high was the March rise. What time did the March rise occur

a. What time in the month?

q. Yes.

a. I could not just state the day.

q. How much water was there on K street in March?

a. Very little except in low places in the Sloughs

q. Will was there any?

a. They were none except in the low parts of the streets

q. The surface was not covered? a. No sir

q. There were no levees in those times were there?

a. They put up a temporary levee out here on the American River - sand bags were filled up, sand bags well I believe

q. But there was no levee on 4th or 5th streets?

a. No sir

q. And no levees on the Sacramento? a. No, sir. I think some of the low places on the Sacramento

River, were probably filled in a little with sand bags to keep it from running into the city.

Q. You say you had a restaurant in March? Where was that? A No, I say in February, after the water went down, the latter part of January and February.

Q. Where at?

A On K street, bet 2^d & 3^d

Q. The water did not get into your house?

A No, sir not in March

Q. You had one of those canvas shanties? A Yes

Q. The town was principally built of canvas houses at that time?

A Yes, nearly so

Q. There were only three or four wooden houses I believe in town?

A I do not know of but one that was all wood at that time. That was the City Hotel on Front Street.

I think the houses had
canvass roofs or canvas
sides

2. Now did not the busi-
ness of the town go on just
as usual during the three
or four days that K street
was flooded?

Mr Catlin He has answered
that question

Mr Cadwalader You do not
recollect the route you took
to the Forte?

A Well, as I said before
if I knew just where that
little church was located
I could tell just the route
that we took. We took a di-
rect line from the church
to the forte

2. What street is the
Forte on? A The Forte is
between K and L. I think

2. None of the streets
had been raised, had
they? A No sir

2. Was the site of the
city covered with trees?

A No sir. There are some few heavy large oaks standing around in different places

2. Were they not very thick? A Not very thick, no sir

Testimony
of
Walter A. Kidmore

Recalled for further

Cross-Examination
Mr Hart I understood you to say this morning that the chief difference between hydraulic mining properly speaking, and drift mining is in the quantity of material washed. That is the chief difference?

A No, sir. I said that the term "drift" mining was mechanical. It is a mechanical term relating to the method of

extraction. That is the difference

Q. Is not one of the chief differences between these two in the quantity of the material washed?

A. There is a difference in the amount of water used.

Q. And a difference in the amount of material used? A. There is no so much in the amount of material washed as is in the amount of water used.

Q. In the one case you wash a mountain from the top down to the bottom to the pay dirt or pay deposit, pay lead, and in the other case you take out the pay dirt, and wash it?

A. The process is just exactly the same.

Q. There is a difference

between the quantity of material washed by those different processes?

A That would depend on how many men were working

Q. Take a single mine refer to a single mine to a single mountain?

A The Bald Mountain Company extract something like - they have been known to extract as much as 120 car loads. That would be a large amount of material

Q. How many cubic yards would that be?

A It would be, I presume, I presume that a car holds very nearly a cubic yard. They are very large cars

Q. That would be 120 yards a day? They hauled out a great deal of dirt and dumped it. There is a difference between that and the material

washed out at Gold Run -
the bottom material

Q. Taking the average
at 3 cubic yards to the
Miners' inch, with the
amount of water they
used -

A {Intg} I do not think
they have been washing as
much lately

Q. I say there would
be a difference in the
amount of material, would
there not?

A There is a different-
character of dirt in the
drift mines. The dirt
is fine, and moves
easily

Q. I am asking about
the amount?

A Do you mean in
cubic yards?

Q. In cubic yards? Yes

A The amount of ma-
terial used - there would
be more cubic yards.

Q. Just about 10 times

as many cubic yards?

A I do not know that there would be as much, sir

Q. At least 16 times as much cubic yards, would there not be?

A I do not know that there would be. I never made a comparison

Q. How many cubic yards of material pulverized by a stamp would it take to make a ton?

A Pulverized by a stamp?

Q Yes A Well, 13 cubic feet in a vaine is considered to be a ton - therefore two tons would be about a cubic yard

Q. Two tons to a cubic yard? A Yes, about 2 tons of the material

Q. All of the quartz mines you have mentioned stamp about how many cubic yards? A I only mentioned, I believe, one.

Q. What was that?

A I mentioned the Pacific. Its capacity is equal to about. Its milling capacity is equal to about 10,000 or 12,000 tons per annum.

Q. How many tons per day? A. The stamps are light. They go a little over a ton and a half, I think.

Q. How many stamps?

A Twenty stamps.

Q. How much do you pay to each stamp?

A I said that the duty of a stamp there was a little over a ton and a half. That is about all they can get out in that mill.

Q. That is about 30 tons?

A Yes. About 30 tons a day. They crush it very fine.

Q. It would be about how many cubic yards?

A Well, 30 tons would represent something like 13 or 16 cubic yards.

taking it at an estimated measurement of 13 cubic feet to a ton of solid matter. It would be 30 at the outside

2 Thirty cubic yards out of that mine. I will ask you whether or not it is a fact within your knowledge that the Gold Run Mine, itself sends out 3200 cubic yards per day? A I do not know it, because I have not been there when they were working this year

2. That would be your estimate? A I could not tell

2. You would not make it any less than 2000 cubic yards per day?

A I have never even attempted to estimate it

2. I will ask you whether or not it is

not a fact that the Gold Run Mine washes out more cubic yards per day, than all the quartz mines in the state combined, that you know of?

A I do not know that to be a fact

Q. You do not know that it is not a fact?

A I do not know that to be a fact; sir

Q. You do not know that it is not a fact?

A I have no comparative knowledge on the subject. I have never measured it.

Q. How much do you say the largest drift mine washes out per day?

A They wash a great deal, I said. They extracted sometimes 120 car loads or more

Q. That would be 120 cubic yards?

A Yes, Approximately

to that

2. How many drift-mines do you know of in the State that wash out that many, or abstract that many cubic yards of dirt, per day?

A The Bald Mountain is the only one I know of that abstracts a large amount. The claims up near Bath and Michigan Bluffs, and through that region, and the ~~Perrin~~ ~~claim~~.

2. Where is the Bald Mountain Claims located with reference to the American River?

A It is not located within the drainage system of the American River. It is in Sierra County.

2. Where is it located with reference to any river? A Its tailings would go down into the

Yubas, one of the forks of the Yuba, and reaches the Sacramento River in that way

2. And these claims abstract their dirt from the bottom stratum, do they not?

A They abstract it from the bottom, yes

2. All of these drift mines?

A They all abstract it from the bottom

2. And by manual labor?

A By manual labor

2. With the pick and shovel? A yes

2. How many drift mines do you know of in the state?

A I have personal knowledge of perhaps 100 in round numbers

2. Do you know of any others as large as the Bald Mountain?

A Not of my personal knowledge. That is the largest one I ever saw.

Q Does not the Gold Run mine wash out more than 100 times as much per day as the Bald Mountain in cubic yards?

A I have not been at the Gold Run mine when it was running for years.

Q You have no means of making any estimate on that subject?

A No sir because I do not know what they are running now, there bottom dirt is very different from what it was when I was there in early times.

Q From your general knowledge do you #. not know the Gold Run washes out more than 100 times as much per day as the Bald Mountain?

A I do not.

Q You do not know that it does not?

A No sir I have no knowledge on that subject.

I have never made a Comparison.

Q I will ask you whether or not as a fact the Gold Run mine does not wash out as much per day as all the quartz and drift mines combined in the state of California?
A I will answer that in this way that I have not seen the Gold Run mine run during the present year nor never for several years.

Q Do you know of any hydraulic mine in the state of California that has prepared to work and has worked as extensively as the Gold Run mine within the last two years?

A I know of mines that are as well fitted for working as the Gold Run.

Q What mines are those?

A I should consider that the mines of the Gardinell

Company with respect to the water and facilities was just as well fitted.

Q And the impliments of mining?

A And the impliments of mining pipes etc.

Q Equally as well fitted?

A yes.

Q Do you know of a hydraulic mine in the state of California that is fitted to work more extensively than that of the Gold Run - any one in California?

A Yes, Two years ago I was at the Bloomfield. I consider that the North Bloomfield Company was fitted out more extensively.

Q Do you know of any other?

A I have seen portions of the ground owned by the Milton Company in various places. I have seen other mines at North San Juan

Nevada County, and the
 Excelsior mine, Smartsville
 all of which are fitted out
 certainly as well as Gold
 Run.

Q From your general
 knowledge of mining and
 your observations and in-
 vestigations in your capacity
 as a mining expert and
 Secretary of the Mining
 Association is it not
 a fact that the Gold
 Run mine in the extent
 of its operations would
 be considered a first class
 mine?

A I consider it first
 class property Sir.

Q Not property. I mean
 a first class mine in
 the extent of its operations?

A I do.

Q With works about as
 extensive as those of any
 other mine in California?

A Yes. it would be classed
 among the first class

Mines with respect to
extent and facilities.

Q You testified this morning
that drift mining and
quartz mining contributed
very largely towards the
amount of sand that was
sent down the River? }

A I said that they did.

Q and you stated that
the extent of mining and
material that is sent
out from a drift or
quartz mine was less
than 100 times or one
one hundredth times as ex-
tensive as that from a
hydraulic mine, in the
extent of material that is
sent from a single mine? }

A I did not state any-
thing of the kind Sir -
I did not assume any-
thing of the kind because
I have made no such
Calculation.

Q Is not that a fact? }

A I do not know that it

is a fact sir I do not
 O You have investigated
 these matters verry fully,
 you have examined it
 very fully and made
 Reports particularly as to
 the Character of the Work-
 ings of these mines and
 the amount of work that
 was done and upon
 that you have sent reports
 to your superior
 and to the government of
 the United States. You have
 made Annual reports and
 it seems to me as though
 you ought to be able to
 state whether or not that
 is a fact?

A I have never made
 any measurements spe-
 cifically for that purpose
 I never anticipated to have
 that question asked me.
 My examination has been
 confined to particular pro-
 perties.

O Is it not true then

that there can be said
to be no comparison
between quartz mining and
hydraulic mining in
the amount of material
that is washed into the
streams, into the dumps?

A There is a comparison
as a matter of course.

Q How in comparison?

A The comparison is that
in one case a great deal
of the material is crushed
and passes through
screens and it passes
off and in the other case
in hydraulic mining a
great deal is heavy
material and the boulders
which constitute the bank
remain where favorably
located in the canyon
Q Which is the greater
in specific gravity the
sand in the upper or
the sand in the lower
stratum of the mine
A The sand in the lower

Stratum as far as my experience goes has somewhat the greater specific gravity

Q Do you mean to say that there is a difference in the specific gravity between different sands lying in different parts of the earth?

A Yes between the Sands that I myself, that I have described in that particular

Q What did you say was the specific gravity of the Sand in the lower stratum of the Gold Run Mines

A I said 2.58.

Q Which possesses the greater specific gravity quartz or slate rock?

A Quartz -

Q Interrupting, I mean granite or slate rock?

A Well granite would have greater specific gravity than slate rock

Q Which possesses the greater specific gravity the sand of slate rock or slate rock itself?

A The material disintegrated from slate rock would possess the specific gravity of the original material

Q Do you not know that your estimate of the specific gravity of sand in this mine exceeds the specific gravity of granite?

A The specific gravity of the sands in the lower portions of the mine is about 2.58.

I have made no determination of the specific gravity of pure granite. I have never had occasion to do that.

Q How much to the cubic foot would be the weight of the sand which you say has that specific gravity?

A How much to the cubic

foot?

O Yes

A Provided it was dried and deprived of moisture?

O As you weighed it?

A Well I presume that it would be about a cubic foot, it ought to weigh - a cubic foot would weigh perhaps 80 pounds - 80 or 90 pounds.

O According to your specific gravity would it not weigh twice as much?

A I am only speaking of its weight.

O According to your determination of 2.58 how much would a cubic foot of it weigh according to that?

A I cannot determine what a cubic foot would weigh of that material I never weighed material of that kind, these things are

all tabulated,

Q Can you not make a
Calculation as to the
weight of a Cubic foot
of sand which the specific
gravity which you mentioned
A I cannot sir.

Q You can not?
A I cannot of course not
Material sometimes has a
great deal of moisture in
it.

Q Do you know how much
water weighs?

A No sir

Q Per Cubic foot?

A No sir I know relatively

Q How did you take the
specific gravity of this
without finding the weight
of water?

A The specific gravity was
taken under my supervision
by a Chemist in San Fran-
cisco and I was present
at the time?

Q You do not know whether
it was properly done or not

A I know it was properly done because I saw the weighing.

Q How did he arrive at the specific gravity?

A Well in determining the specific gravity we took I think a sample of say 400 grains in a bottle. The system is described in all the works on physics.

Q How do you understand to be the meaning of "specific gravity". What is the specific gravity of a body?

A It is the relative weight of the substance as compared with the relative weight of so much water in bulk.

Q How do you take the specific gravity of a body?

A I have been in the habit of taking it with minerals by weighing in

air and then weighing in water.

Q How do you proceed to do it

A I would subtract from the weight in air the weight in water, and divide the difference into the weight in air, and that would give you the specific gravity. that is the method in which minerals are tested some times.

Q That gives you the specific gravity. does it put it in that form 2.58?

A Yes 2, and five tenths

Q What does that mean

A It means as compared with an equal bulk of water it weighs 2.58 times more.

Q Than water

A For instance a cubic inch of material would

be ballanced by 2.58 Cubic
inches of water.

Q It weighs that much
more than water?

A Yes 2 and a half times
— two and six tenths
times in round numbers

Re direct Examination
of

Walter A Skidmore

Mr Dibble Where were the
Claims you purchased
situated in relation to
Indiana Hill?

A Immediately adjoining.

Q On which side?

A It would be on the
west side.

Q When did you purchase
them?

A In 1866 or 1867

Somewheres along there.
it is situated on the
west side, it is really

On the end - it is on the extreme end of the Gold Run district, it is on the map here and is marked as the Warren Claim
 Q In making the purchase did you examine the surrounding section?

A I did sir.

Q Describe the banks and the Channel remaining as to the character and the average height as you found it?

A The height the average height of the district I made it about 200 feet, the average height of the banks about 200 feet.

Q What was the rim rock or bank formation?

A It is slight

Q A slight formation?

A A slight formation.

Q Explain what you mean by the rim Rock formation?

A It is the sides of a

Channel, the sloping sides
of the Channel - gutter or
~~the~~ trough in which this
Ancient River Estuaries
① Perpendicular or on
what slope?

A Well the slope varies
I found it about 45 degrees
in some places and some
places it would be thirty
degrees - 45 to 30 degrees

① When you were there
in October to what average
height was the Rim Rock
exposed?

A My only observation
was in travelling around
on the exterior of the
Rim, that rim manifested
itself by what miners
call Outcrop. That rim
was - well I think it
was much higher than
200 feet, it was possibly
vertical at the points I
observed it, it was as
much probably as 400 feet.
The banks sloped.

Q The question was to what ^{average} height was the rim rock exposed?

A The rim rock was exposed - where I was I think it must have been 400 feet higher than the bottom of the diggings.

Q I understand you to say that the average exposure of the rim rock was 400 feet?

A No sir the vertical exposure I told you would be 200 feet.

Q What is the average height of the rim rock exposed when you were there in October?

A Above what?

Q The exposed rim rock

A You do not tell me from what position, where do you want me to make my statement from.

(The Reporter read the question)

A It was more than 200 feet vertically.

Q What depth of Channel was there in the thread below the exposed rim Rock?

A There were over 200 feet.

Q In October?

A The only side I am talking about is the west rim.

Q What do you understand by the thread of a Channel?

A I never heard the term used before. I would suppose that it referred to the deepest portion.

Q It is the Centre of a River or the Centre of a Channel?

A Yes. It is a new term to me.

Q Of the material so remaining state its color solidity and moveability compared with that that had been taken out from within the contents of the exposed rim Rock?

A It is harder very much harder more compact.

Q I will ask you this question, was was the color of the lower stratum remaining in sight?

A It is blue material very much compacted.

Q What was the depth of the stratum?

A I did not measure it.

Q Remaining in the ground?

A I did not measure it. I walked up the sloping sides of the bank, there was a great deal of blue gravel more cemented on the bottom, this sample before me is the character of the bottom material. I do not know where it came from but it is a good representation of that material.

Q How does the top material compare with that in the box to which

Your attention was directed by the Attorney General? Mr Hart objected to the question upon the ground that it was not in Re-direct examination, they examined the witness in relation to the character of the material on direct examination,

A Which box do you refer to, there are two boxes here

Q The one on this side? The Court That is Number two

A I have seen such material as that in the upper benches of the Gold Run mine, this material is similar to that

Q Explain fully the reasons why the sands on the bottles presented to you are not sands from the Gold Run mine.

Mr Hart objected to the question on the ground that the witness had been

examined on the subject
on direct examination
I Explain to what extent
the material coming from
the mine could be trans-
ported by the water to the
River?

A The material coming
from the top, the heavy
material and the lighter
material of the top would
be transported further in
a current of water.

Mr Hart Moved to strike
the answer out upon
the ground that the question
was incompetent.

Mr Dibble I propose to
show by the witness and
I make the offer to show
by the witness that the
material coming from
the lower bench that has
been washed in the last
five years or that will
be hereafter washed Can-
not be transported, two
per cent of it to Rices

bridge by reason of its
heft and immovability
Mr Hart We have made
our objection to the ques-
tion, we have objected to
the question upon the
ground that the witness
is incompetent.

The Court Sustained the
objection and granted the
motion to strike our and
Counsel for the defendant
EX excepted.

Q You refer to pillars
remaining in the mine,
state the reason why those
pillars remain in the
mine?

A They are left there as
boundary lines, land marks
it is the custom of
miners.

Q When lava covers
channels what kind of
mining is resorted to
A Drift mining, where
there is a great superin-
cumbent mass of lava

O Explain the Reason if there be a reason why hydraulic mining cannot be resorted to where the Channel is Covered or capped by lava.

Mr Hart I object to that question it is not in proper Re examination

Mr Wibble We want to show the reason why drift mining cannot be resorted to in some cases.

Q Can you compare the cost of the fitting of the Bloomfield and Milton with the cost of the fitting of the Gold Run mine, embracing all the fitting required to open and work the mine?

A I can. The North Bloomfield has one of the largest tunnels that ever was constructed for mining purposes. It is my recollection it is 8700 feet in length aside from its branches. It has enormous reservoirs and it has ^{ducks carrying} more water than the Gold Run.

Q Estimate the comparative difference between the North Bloomfield Milton and this mine? A The comparative difference?

Oyes. As to cost?

Awh! as to cost, I would say it would be as 1 to 10 in regard to cost, as the North Bloomfield and such Companies owning such

large properties; that theirs
are properties of greater
magnitude much greater

Testimony
of
Hartford Anderson
Called for debr. sworn

Mr. Castlin Q Where do you reside?

A Near Folsom

Q Where did you commence
residing there or in that vicinity?

A I established myself
near Folsom, a mile below
in the Fall of 1850

Q When did you first be-
come acquainted with the
American river at that
place or in that vicinity?

A Well I first became
acquainted with the river
there in 1849, in December,
some time in December,
along about Negro Bar and
through that section

Q How long have you resided

there? A I have made that
my home ever since

Q I will ask you whether you
have been engaged in mining
yourself? A I have been
engaged in mining the greater
part of the time

Q Have you noticed the
effect of the Winter floods
upon the tail piles of the
various mines in that
vicinity tailing in the
American river?

A Yes I have noticed the
effect more because I was
interested in the effect
than anything else. I have
noticed the effect of high
water on them

Q Describe in what way
the Winter flood, the usual
flood we have in the Winter
Season affects those tail
piles referred to? A Well
the high water generally
scatters them, washes them
down and levels them, but
does not appear to carry

them away altogether. It washes them down, levels them, flattens them

Mr Start Before proceeding with this Witness further, upon consultation with my Associates, I have concluded to withdraw the withdrawal of the question put to the Witness Skidmore, and allow his answer as far as made to stand, in relation to how he knew that those were not the sands of the Gold Run mine

Mr Dibble We should prefer that the Witness Skidmore should be allowed to answer the question fully and reserving the right of recalling him for that purpose.

Mr Leathin O State to what extent you have observed the mining on Texas Hill and Mississippi Bar, How many of those tail piles

have you seen extending
into the river at one time
during the Winter Season?

A Indeed I could not
tell. There were a good many
places running in and I
could not really say. It
has been a good while ago
since those mines were
worked. I could not say

State as nearly as your
recollection enables you
about how many?

Well on Negro Bar the
first I recollect —

Q And I do not speak
of Negro Bar at all. I
speak of Texas Still and
Mississippi Bar? How

A I do not suppose there
were more than 10 or 12
places running in from
Texas hill alone, separately,
at one time. The French
Company ran in a great
deal of dirt at one time

Q How many on the other
side of the river, on

Mississippi Bar?

As there were a great many more running in on Mississippi Bar after the north fork ditch came in there the bar was strong all along there. I could not say how many there were but there were a good many, I could not really say how many, just running the tailings right into the river, they ran right into the river, tailed right down into it?

Q Those tailings as they were run into the river, what shape or form did they assume? A Where the pieces run down they are a great deal higher; sometimes they run then out each way and spread them out, but piling them as high as they could so as to save their fall, extending them out into the river.

Q How far would those tail piles extend out into the river?

A Sometimes I have seen them force the river clean out of this channel. Frequently I saw it run clear across Right at Mississippi Bar it did not do it so much as at the bar above. I saw it on Texas Hill force it clear out, force the water clear across the channel.

Q How high would that tail pile be? A 12 or 14 feet, sometimes more. Just as high as they could build it to get their fall.

Q What would it be composed of? What kind of deposit or tailing? A It was composed of gravel and small rocks and sand. Those banks are all composed of gravel and sand.

Q Describe now particularly what effect the Winter floods had upon that pile of tailings run out in the river in the manner that you have stated?

A I never could see anything

more than scatter them, level them down and flatten them

Q State whether you noticed them in the following Season after the winter floods had gone and the water had fallen to its usual Summer level. State how they appeared then?

A You would see the pile of tailings there, when the water would go down you could see where the sluices ran out. They were generally solid, there and not so high as when they were first run out. They appeared to have settled down and to be more flat

Q State how those tail piles in the river after they had been washed by the winter floods compared in solidity with the material as it was in the mining claim from which it was washed?

A It was more rock and gravel, you would not see much sand on the top of

the tail pile. Not a great deal. The sand was generally floated off and it went down.

If you followed below the dumps you would see the sand settled further down.

Q My question was, how would that tail pile compare with regard to hardness and solidity with the material in the claim itself?

A It was a good deal harder. It is harder after it is washed down and settled by the water. It is harder to pick up a great deal than the banks are. The banks are rather loose and rather easy picked, but you could not easily pick into those tail piles where the water was running over them. They are hard to pick, very hard to pick. It is difficult to get them out of the way if you want to cut through them. It is double the work to cut through them.

that it is cutting through the bank.

Q When you were mining there in 1849 or 50 did you work or mine near the bed of the river?

A I worked right at the edge of the river or within a few rods of it in 1849. Then I did not work any more there until the Fall of 1850.

Q Did you at that time have a knowledge of the bed of the river, its general appearance and character, depth and width? A Yes. I can recollect very well what the river was like at that time.

Q Now comparing the river as it was then and as it is now, state your judgment as to the degree of the filling in the river from Folsom down to the foot of Mississippi Bar or as far down as Sailor Bar?

A The filling up of the

river is considerably more
 right opposite Folsom, I
 think, than it is below
 I should suppose, and I
 from my judgment from
 the fact of the Long Island
~~ditch~~. When we built the
 dam across the river —

Mr. Caldwell Never mind
 that

The Witness I want to show
 how this river filled up. That
 is all, that is what I
 based my judgment on as
 to what the filling up of the
 river was

Mr. Caldwell State what
 your judgment is first and
 then state your reason for it?

My judgment is it was
 filled up opposite Negro
 Bar near 30 feet; 25 to
 30 feet

Now state your reason
 for your judgment

A There was a big fall
 just above Folsom; below
 the bridge there was a big

full, I think between 9 and 10 feet. The dam was built above that full.

Q At the head of Negro Bar? A Above the head of Negro Bar; the dam was built above that. It was built 3 or 4 or 5 feet to turn the water in the ditch.

Obstate which side of the river was your race?

A It was along on the side next Negro Bar. The race was along next Negro Bar.

Mr. Leadwalader He objects to this as irrelevant.

The witness The river had considerable fall there and this ditch was run as high as it could be run and the river was low enough then below and opposite Negro Bar to put in a couple of sluices and long Toms and have plenty of fall to have water

from that ditch

Q What was the elevation of that ditch above the water in the river? A I considered it somewhere near 30 feet. I think that ditch was somewhere near 20 feet above the channel of the river at that time. But now the river runs clear above where that ditch was. It runs clear up, further up on the bar. The water runs now above where the ditch was.

Q It has filled up as high as that ditch was or even higher? in fact why it is a good deal higher than the ditch

Q What do you consider the depth of the filling further down; as far down as Mississippi Bar and Sailor Bar? A I think it is filled up perhaps from 15 to 25 feet from there down. Perhaps not more than 15 feet down below

Sailor Bar. Along in there I do not think it has filled more than 15 feet. I have examined it lately. The tailings going in from Pennsylvania. That filled in I know a good deal and they seemed to lie right there. They could not make them wash out. I have known many dams to be put in there to try to move the tailings or wash them so they could work farther back on the bank, but they could not do it. Those tailings would not move.

The Court The question was how much it had filled up.

A opposite Negro Bar I said it was filled up from 25 to 30 feet and below that 15 feet or it might be in places 20 feet. It goes off now perfectly level. Before there used to be holes.

and higher places. The river would be deep in some places and shallow in others; but now it is level all the way down.

Mr. Eastlin You stated that at Pennsylvania Flat a good deal of railing had gone in State about what the depth of the filling is ahead of Pennsylvania ~~Bar~~ Flat in the river? A I should think it was about 20 feet.

Q State whether you have ever had opportunity or occasion to observe those deposits in the river by any work that has been done in the river, if so what?

A I have had a tolerably good opportunity to know. I have worked on the river though I have never worked on Pennsylvania Flat, I have worked in Mississippi Bar on the opposite side

Q Have you seen any mining done since this filling by

any person?

A How is that?

Q Have you seen any parties or miners engaged in any sort of mining working in the bed of the river since it has been filled up?

A No. I have not seen anyone. The tailings have been so deep that they could not work in the river; they could not get down.

Q I will ask you how well you are acquainted with the extent and character of the mining on Texas Hill.

A I am tolerably well acquainted with that. That is where I first settled on Texas Hill.

Q What is the length and breadth of that? A The length of the hill from where it starts in below Tennessee Bar down to the lower end I think is just about a mile.

Q What was the shape of the top of that hill in early days?

Was it level or rounding?

a The gravel ~~carried~~ clear to the top. on most of it about half way down. From that up to the upper end there was a good deal of sand on the top.

Q My first question was, before it was mined off was the surface level or was it hilly?

A It was level back to a small ravine called French Ravine or something of that kind there was a sag in it maybe 2 or 3 feet down.

Q It was generally level?

A Generally level.

Q How deep was the first mining there? How deep did they go?

A The first miners who went into there were a firm by the name of Crump and Clarkin.

Q I did not ask you who were mining there but how deep they went.

Q They only went five feet I think, from 4 to 5 feet

Q Take the general mining that was done there first, how deep did they generally wash off the surface? To what depth?

A From 4 to 5 feet, the first mining that worked over the ground

Q What did they come to then? A They came right down to a bed of sand, and when they came to that they stopped

Q What was the next mining

A The next mining, parties went into that sand and sunk down some seven or eight feet and came to another bed of gravel underneath. That was a great deal better, a great deal richer than the first. Then they went down. All the cobble stones that had been thrown out they threw up again and worked into the solid bank. They worked into the solid

bank as far as they could
get back and get fall to work

Q From what depth did they
mine it off from the surface
in the place where they stopped
or the bed rock if there was one?

A About 20 feet. The
bank all along there is about
20 feet

Q State if they came to the
bed rock? A They came
to a kind of marl rock;
something like that stuff
there <indicating> It was a
kind of cemented marl like
that stuff there

Q Did they call that bed
rock? A Yes.

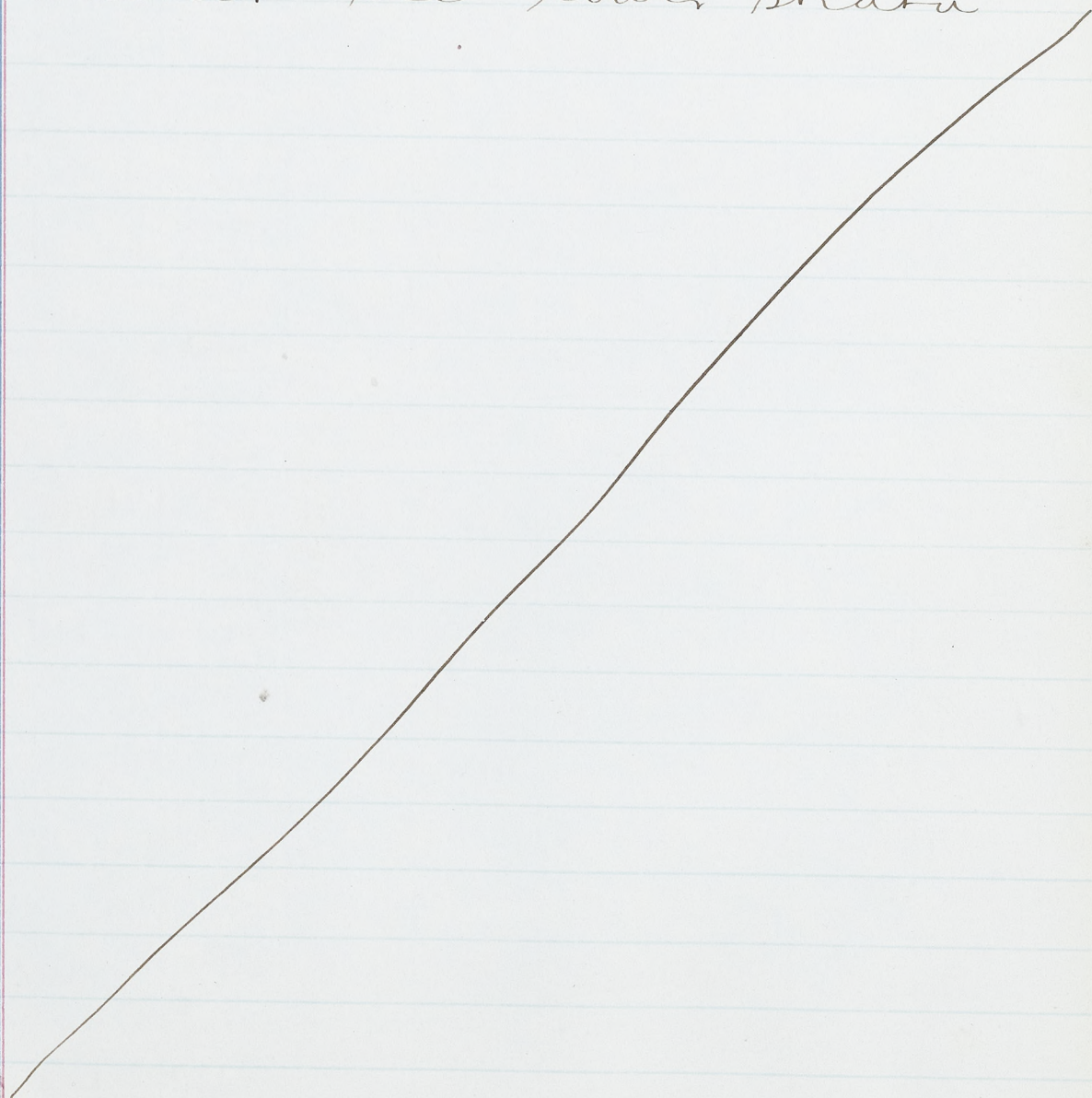
Q They never mined into
that? A No. They never
mined into that

Q How far did they go back?

A I think from 400 to 500
feet generally. They went back
just as far as they could wash
back or could get any fall

Q What was the depth of
that stratum of sand that

They went through? A It
varied in depth. In some
places it would be 8 or 9 feet;
in other places it would not
be over 5 feet. Where there
was sand on the top of the
ground above, at the upper
end of the bar, there did
not appear to be much of
that sand; but as they went
below the sand got deeper
thicker the lower strata



2. I will ask you whether you were acquainted with the mining region known generally by the name of Prairie City?

A Very well. I used to be pretty well acquainted with that region in country there

I state whether there was mining done of any importance there at any time; if so, about what time?

A I think along about 1854 or 1855 or 6, and along until perhaps 1858, there was quite a large place called Prairie City, quite a town. Probably not so long as 1858; 1856 or 1857

I That was when it was at its best? A Yes.

I How long did they am-
tinue mining? That is, without regard to the little mining that is remaining there, but the general mining. How long did it continue?

A Ah well, they have been mining there ever since

But the principal mining was done within three or four years from commencement. About the time after the time the Natoma Ditch came in, there was a very large mining camp. Those hills were all covered, besides Prairie City, with miners.

Q What was the character of mining then, and what was the character of the soil that was washed? A It was all surface mining, pretty much.

Q What was the character of the soil? A Red soil, crumbly much, that came down on a kind of - a cement.

Q What was the general depth? State about the depth that they generally mined there?

A They averaged from about 18 inches to 2 feet. In some places more. In some places they run down as deep as 10 feet, but only in spots.

Q In some places they went

down as far as 10 feet?

A Yes, in some places they went down as much as 10 feet.

2 Now have you made an Estimate of the area of the surface that has been washed off there? A I never made an exact estimate. I never tried to make an estimate directly. There was an immense quantity of ground washed off there, I should suppose nearly a thousand acres.

Mr Cadwalader. We object to the answer and move to strike it out as simply a vague conjecture.

The witness. I would simply remark that I make my estimate from surveys that have been made there.

Mr Cadwalader You say about 1000 acres? A Yes.

Above the Natoma Branch drive there is one section -

Section 17 - that is principally all washed over. That is nearly all washed over;

I had evidence here before the
Land Office a year ago to say
that it was

Mr. Cathin Jimsay that some
portion of this surface is
washed to 20 feet. Describe
to what parts of this, then
mined so to that depth?

Q In what parts of the hill?

A Yes, in what parts of it

Q I am now simply referring
to the surface mining. There
is the Willow Spring Trail
right back of Prairie City, &
Fellin this side of Prairie
City that is mined down for
40 or 50 feet depth. They
have mined the whole hill
off there for I expect 40
to 50 feet deep. There is a
large scope of country there
a large scope of ground. They
have been mining there for
15 or 20 years and are mining
there now.

Q How much extent is Willow
Spring Trail washed off?
What area, what acreage?

7777

A. These must be of that deep running there 150 acres or 200 acres perhaps.

Q. State where the tailings of those mines go? that is, the Willow Spring Hill mines where do they go down?

A. They go into Willow Creek.

Q. And the mines you spoke of first in Prairie City, where do their tailings go?

A. A great deal of that goes into Alder Creek; because the hill goes up this shape (describing), and they worked the whole top off the hill, and the north side of the hill went into Indian Ravine and Humbug Ravine and several little ravines that run into Willow Creek, but the most part of it went into Alder Creek.

Q. About what is the distance from Willow Spring Hill to the American river, say by the way of Willow Creek?

A. By way of Willow Creek it is about two miles

2 And about how far are the dippings generally from the American River by way of Alder Creek? A That would be 2 1/2 miles perhaps

Cross-Examination Of Hartford Anderson

Mr. Cadevalader. When did they stop mining in this Bar, when did the great mass of miners leave? A What?

2 When did the great mass of the miners quit working on Mississippi Bar. When did the working substantially cease on that bar?

A There has not been a great deal of mining on the Mississippi bar for the last 5 or 6 years; only a few claims running.

2 Now tell me, when did the white miners leave that bar?

A The first class of white men left that bar about

1851, 52 or 3, I guess. Then there were about 200 Chinamen on the bar, and they worked there 2 or 3 years. There was an awful camp of Chinamen; I guess over 2000.

Q What time did they leave?

A They left I think in about 2 or 3 years, I am not sure.

Q What would be 1857 would it?

A 1857, or somewhere along there; after the North Fork ditch got down there. Then the white men came again and the Chinamen had most of them to leave. There were a great many Chinamen still remained there however.

Q How long after the Chinamen left was it, before the North Fork was brought in?

A About the North Fork was brought in while the Chinamen were there. But the white men rather crowded them out.

Q How long did the white

Men continue mining there?

A There are some of them mining there yet, but there are not near so many. They could not make it run well; they had to go so far back they could not get any fall and finally most of them had to quit.

Q You say then that not been any mining there of any consequence for 5 or 6 years?

A I think 5 or 6 years, not of any great moment.

Q You spoke of Prairie City. That was on the prairie was it not? A Right out on the prairie, or on a hill that ran through the prairie.

Q And that was a camp started in what year?

A That was a camp started I think in 1854. 1853 or 4 or somewhere along there.

Q When was it abandoned?

A It commenced failing and going up and they commenced moving away after Dolan had got

fairly under headway and they kept moving and moving. In fact they all moved away after a while; the whole town moved away and came over to Tolson.

Q That was in 1857

A. 1857 or somewhere along there. But there were a good many there along while after that.

Q Still the heaviest portion of that people left there before 1857

A Probably 9/10 of them.

Q I do not know whether there comes be that many or not. There were a good many houses there for a good many years; the Granite Hotel for one.

Q Any body going there now would see all the old stones would they not? A It is all mined out where Prairie City stood

Q But they would see all the stuff that had been mined out then lying in piles would they not? A. It almost

all went into Willow Creek

I mean the Stone?

A Oh yes; the Stones. It is covered with stones. The hill is covered all over with stones

I all this 1000 acres is covered with stones? A Oh yes.

All covered with stones

I None of those ever even run into the Creek?

A They did not run the rough material into the Creek. They threw the stones, the cobble stones, back. The heavy stones would not go through their sluices

I There is no grade is there between Prairie City and the American River, except by the way of Alder & Willow Creeks?

A That is all. Those are the two outlets. Well, there is Ward Prairie, a small stream that runs down by the Notama Company's vineyard and runs in between the two

I The grade of those two creeks was originally very slight was it not? A Alder Creek

Still keeps considerable grade,
but Willow Creek has been pretty
much flattened up?

E. Linné 1855?

A Willow Creek has not much
grade

2 Alder Creek never did have
any grade did it?

Yes. It had grade enough
for a company to project a flume
or they were going to project a
flume. They thought there
was fall enough to put a hy-
draulic in and carry the tail-
ings clear into the river.

2 But they found there was
not? A I guess there
was fall enough but the Com-
pany was not able to do it.

2 All the heavy matter is
pretty much in the Creek?

A All the heavy matter is
pretty much in the Creek.
Some has washed down by the
railroad bridge, but the most
of that was swept out into
the river.

2. You do not get to the

foothills, until you pass
Halsum do you, in going from
the plains ² a we com-
sider the foothill, & com-
mence at Alder Creek

I was it not differently es-
tablished? a I think not.
The hill rising at Alder Creek
is 104 feet high. That is
right a to Alder Creek. That
is the height from the railroad
That is a pretty good foothill.

I you mean it is 104 feet
higher than the river ².

a I think it is that much
higher than the Railroad. When
the bridge ^{was} put across it was
40 feet above the bed of the
river or the Creek

2. When did the mining sub-
stantially cease at the ^{Negro} bar?

a The Negro bar did not last
much after Halsum was started,
about 1855. That is the main-
ing on the bar. But the
flat back was mined and
is mined a good deal yet.
There are I believe two pretty

large by draught mine running
in there now.

2 But it was substantially all
open 16 years ago?

A Well, the river came all
over Negro Bar and is running
right over the top of the bar
now.

2 The miners have pulled up
their stakes and left now, have
they not? A They have
got up into Folsom, climbed
up on the higher bank.

2 That is true of all that
country is it not? That there
has not been much mining
there for 15 or 16 years?

A There is a good deal of
mining out from the river in the
creeks and gulches. There are
a great many men mining in
the creek and gulches.

2 How much has the river
filled up in front of Folsom?

A I think the river must
have filled in from of Folsom
20 feet, or nearly that

2 I mean just below the bridge?

A Just below, where the rock crops?

Q It has not filled up at all to the rock, has it?

A There is a good deal of dirt filled up in the rocks; there is a great deal of sediment filled up in these rocks, too.

Q When has that filling occurred?

A It occurred along from 1852 up to 1860, pretty much all.

Q There has been no filling since then? A I have not noticed much. I have not noticed it filling up much in the last two or three years. It has not got much higher the river turned to this side and runs down over the bar pretty much and I have not noticed much filling in the last few years.

Q I suppose the water that has run over the cobble stones has not washed them off the bar?

A It has not washed them

Off the bars much.

I all the heavy stones that were ever on those bars are there now? A I think so, pretty much. All that were run in from each side, of the heavy rock of that size \langle pointing \rangle and a little over, appeared to lie. They appeared settled down in the bed. They are hard to move, and the appearance to be almost a solid bed.

I When was the mining substantially over on Texas Hill?

A There has not been a great deal of mining on Texas Hill for the last ten years; that is surface mining. They have been drifting on Texas Hill. They got so far back they could not strike any farther and then they went to drifting in under and that has been principally the mining there. There are several companies mining there now, drifting out their dirt

They got so far back they
 could not ~~work~~ except by
 drifting

Q How much do they take
 out a day? A I can
 not tell

Mr. Cahlin How much what
 dirt or gravel?

Mr. Cadwalader How much did
 they take out, is my question
 Witness I do not know what
 the miners take out. They send
 their gravel to the Express af-
 fice there.

Q Is the bottom of the mine
 in front of Folsom, cobble?

A Yes. It is all cobble and
 gravel right in front of
 Folsom

Q Are the stones graded in the
 bottom of the channel?

A Pretty much

Q It has been that way since
 1860, has it not? A Yes.

Q It affords a kind of
 pavement for every thing coming
 down out of the Canon to
 flow over. A Yes. Every

thing of a lighter material goes
right over it.

Q And that has been the
condition of affairs there
since 1860? A I think so.
It might have filled up a
little since 1860, but not a
great deal.

Q You have been there to see
it have you not? A I have.
I've right there and can see
the river at my door all
the time if I want to.

Q You have been there all the
time? A Yes, pretty much.
I have been travelling around
a little, not a great deal.
I have made my home there.

Q What was the municipal
way of running at Prairie City?
Was it with sluices or dams?

A With sluices principally.
When the ditch came in they
used sluices; they used strings
of sluices all together.

Q You can go there and see
the old supports for the sluices,
can you? A In some places

2 all over those acres?

A well, below chin is a little flat where you will see little piles of tailings along

2 But I am checking about the pillars of earth that were left to support the sluices?

Ayer. There are not many around on the hill. But on the sides down near Willow Creek, and on the sides opposite to Alder Creek you will see those little pillars that they set the sluices on

2. See them by the hundred?

Ayer.

2 Then quantity of the diggings there do not average 18 inches deep did they?

A well I do not know. I do not think more than half of them. To make an average, I think it would average from 2 to 2 1/2 feet to make an average of the ground.

2. Was not more than half of it 18 inches and under

2 I think it was more than

that generally

Q. That kind of mining is called skinning the bed rock is it not? A. Yes, it is called skinning the top off.

Q. That is what they call it - skinning the bed rock, is it not?

Mr. Catlin. Do you understand the question the Counsel asks you: whether they skin it to the bed rock?

A. No. There was a kind of cement or hard stuff in there, a kind of red hard looking stuff all over those hills. That the boys did not seem to go into.

Mr. Caldwell. I did not ask that question, but whether it was not what was called skinning the bed-rock.

A. Oh, they did not go to the bed rock in any place. The bed rock was very deep there. There was a kind of cement all over those hills.

Q. Where is Willow Springs Hill?

A. It is right south of the

also Willow Springs house or
Hotel

Q It would be east of Prairie
City, would it not?

A It is above Prairie City,
East of Prairie City

Q How high was that hill?
Was that hill more than 100
feet high? A Oh yes. That
hill I guess is - let me see -
I will tell you in a minute
almost - I took the light after
that hill myself once - something
over 200 feet above the rail-
road

Q It is a kind of a flat
after all, is it not?

A No. Deep ravines run
through it, the ravines are deep.

Q When was mining substan-
tially abandoned on Willow
Springs Hill? A. Oh, they
are working there now, there
are some heavy companies
there now. There is one claim
there that they were offered
\$5000 for a few days ago,
or the other day, and they

would not take it

2. When did they commence working them first?

A. About 1855 or 1856, about the time that Tolson started

2. When did the great body of miners leave there?

A. On Willow Springs Hill the great body of miners are there yet, that have ever been there. A good many of them are dead and several were killed by the bank coming. But the old claimants are all there yet pretty much.

2. Just give me the names of the miners that are there now?

A. I will give you the names of the owners of the claims. There is Patrick Donegan, J. J. Patrick, John Corrigan, and Robert Keefe. These are the principal owners of those big claims, those from now that are working.

2. There is one other is there?

A. Yes, there are 2 or 3 other smaller claims.

Q Are there no more than 2 or 3 others? A No. There are only 2 or 3 others. But they hire a great many men.

Q Those you say are as many as have ever worked there

Mr. Caplin. It did not say so, he said those were the principal owners.

Witness Those men have been working there for 20 years or very near.

Mr. Cadwalader How far are their dumps from the American River?

A Where they dump into Willow Creek, I think is 2 or 2 1/2 miles.

Q What is the grade to Willow Creek, from there to its mouth, as it is filled up now in its present condition?

A I cannot not tell. It has not a very great filling.

Q Does it from those claims send anything into the river except muddy water?

A Muddy water is the prin-

Apal thing it has sent.
 I have it sent anything into
 the river for ten years. Ex-
 cept muddy water?

A I do not think it has
 ever sent ~~any~~ thing in except
 muddy water.

Mr Cablin you saw the white
 men left there in 1853. Did
 I understand you to say they came
 back again when the North Fork
 Canal came in? A Yes.

Do you recollect what time
 the North Fork water ditch came
 in? A I think about
 1856 may be, somewhere about there.

I then after the North Fork
 water came in, state whether
 or not the principal mining
 was done? A The heaviest
 mining from the higher ground
 was done after that.

Testimony
 of
John McBeth
 Called for deft. Sworn:

Mr Dibble Q Where do you reside?

A I reside in Butte County

Q What is your occupation?

A I have charge of the
 Spring Valley Company's dams
 and levees.

Q How long have you resided
 in California? A I have
 been in California since 1853

Q What has been your
 principal business since
 your residence in the State?

A Principally mining

Q Are you acquainted with the
 lands on Saw Mill Ravine,
 Butte County? A I am

Q How long have you been
 acquainted with those lands?

A Since about 1857 or 1858

Q State where the lands are
 situated with reference to
 Saw Mill Ravine?

A Do you mean the Agricultural

Lands? The lands belonging to the Company you refer to?

A Both sides all along the ravine up and down

Q How many acres of land belonged to the Company?

Mr. Caldwell I object to that as irrelevant. And as a matter of fact none of the land belongs to that Company.

The Court I do not understand the drift of the testimony

Mr. Dibble The next question will make it very plain. The next question I shall ask is: how many acres of that land is sedimentary land? Covered with slickens

< Counsel for plaintiff objected to the testimony as irrelevant but after argument withdrew his objection >

Q By Mr. Dibble To what extent has the land on Saw Mill Ravine been covered with slickens, and

the land below Saw Mill Run
on Dry creek? A on Dry
Creek it has been covered
in places 700 or 800 acres

Mr Caldwell 700 or 800
acres? Oryes. In different
places: from 1 inch to 3 feet
in places

Mr Caldwell Q Where did the
slickens come from, from
hydraulic mines or what
kind of mines?

A From hydraulic mines
at Cherokee

Q What has been the effect
of the slickens deposited
on the land?

A It has been a benefit
to it on the adobe land

Q What was the under soil?
Before the deposit of slickens?

A Adobe

Q To what extent has the
slickens improved crops
upon this land? A It has
improved them one third

Q What kind of crops have
been raised upon the lands?

A Cereals; wheat and barley

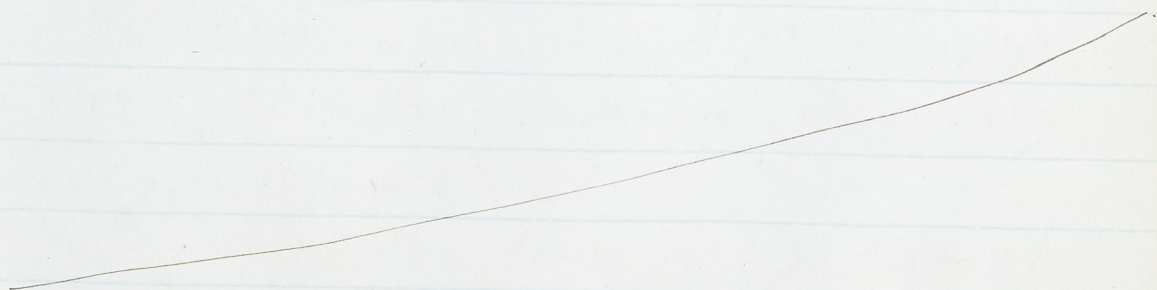
Q What is the effect of the pluckens ~~upon~~ and sediments as to retaining moisture?

A It retains moisture very well. It does not crack up the same as the adobe land does after it is once worked over.

Q What is the result of depth of sediment in the production of crops after first plowing?

A After the first plowing it is an every year crop 'most. You can plow it and dig every year. It does not crack up or dry up.

Q To what extent does the sediment land or the pluckens land produce crops compared with the original adobe land.



Q To what extent does the
sediment land produce
bricks compared with the
original adobe?

Mr Cadwallader objected to the question upon the ground that it had been asked and fully answered before.

The Court Overruled the
Objection.

Q In bushels what is the difference?

A I could not say what the difference is exactly but we have had better crops on the slickens land after one years mixing than ever we have had in the adobe land but the value of the land is one third more.

Q The value of the land
is one third more.

A Yes as it ~~pp~~ prupper
for plowing and sewing
every year.

As to the depth of

Slickens what is the increased value of crops? A I should say that a foot of slickens mixed with adobe the increase would be - well increased it would be quite a difference, say a difference of four or five bushels to the acre.

Q Four or five bushels to the acre?

A Yes.

Q What would be the effect of two feet of slickens - a depth of two feet?

A Well if it was worked over I do not know as there would be any more. I think a foot of slickens would be equally as good mixed with adobe - I think one foot of slickens put on adobe land and mixed up, I think it is the best mixture that we can have or as good, we had

Splendid crops last year
on three feet.

Q. What has been the
Marketable increase in
the value of the lands
since slickens was deposit-
ed on it from one inch
to ~~three~~ feet deep?

A. Well the land has
been selling this fall
and for the slickens land
there is a difference of five
dollars an acre - five or
ten dollars an acre - land
that would sell for 20
dollars will sell for 30
with slickens.

Q. Outside of the land in
reference to which you
have been speaking state
whether sediment is
demanded and utilized
and to what extent on
other lands?

A. Well it has been utilized
it has been taken outside
of the Canal and all
the water is utilized on

the land, all the water is taken out by different parties.

Q Do they pay for the privilege of taking it?

A We have never charged them for it any more than putting in gates for the purpose, they pay for putting in the gates we will not allow them to break up the levees.

Q What amount of water is used in the canal that carries these slickens over on the farms and deposits it?

A About 2000 inches

Q About 2000 inches?

A Yes

Q How many farmers within your knowledge have been receiving the slickens and have been cultivating the land?

A Well I can give you the names of all of them if you want me to.

Q Yes give the names or the number in round figures
 A The bank of Chico It
 H. Harrison G. N. Mund
 Garner Keppel. All that
 time down down he took
 is all out, besides that
 we have been using our-
 selves on our cross levees

Q What is the extent of the Keppel farm?

A Something about 5000 acres I think or 6000 perhaps - 5000 acres of crop I think.

Q How deep are the slickens in his land in the various places giving the highest depth first?

A Well the slickens on his land is over four feet deep now.

Q Four feet?

A Yes.

Q State what he raised on that four feet of slickens if he cultivates it at all?

A He raised a crop of Corn there this summer and now it is in summer fallow grain.

Q On four feet deep of slickens?

A Yes, he raised a crop of Egyptian Corn and now it is all put in summer fallow to wheat.

Q Is it summer fallowed to wheat now?

A Yes.

Q What kind of a crop was it with reference to productiveness?

A About an average crop. He thought it was a very good crop but I have seen others better.

Q And it is on four feet of slickens?

A Yes it is on an old pond filled up.

Q How deep does the plow plough down?

A The first plowing is about 10 inches deep.

Q Ten inches?

A Yes ten inches generally

Q Have you stated the names of all of the parties there who are utilizing slickens and producing crops?

A The old Company the Old Spring Valley Company has a thousand acres and it is over most of it

Q You have spoken of slickens deposited four feet deep and the plow running in only ten inches producing crops. State whether there are slickens of any greater depth and if so the production upon slickens of a greater depth

A No sir I think that is about as deep as any along the Canal that I know of. That is where the old Dry Creek came in

Cross Examination of

John M^c Beth

Mr Coadwallader You do not say that slickens the first year is good, that is what you have stated?

A No sir they want to dry up and be plowed, they crack.

Q The land is lost the first year the slickens come on?

A yes, Well you can plow it up in the spring if it is a dry winter if it is a wet winter you can not.

Q You state that the use of the land is lost the first year that the slickens come on is?

A It depends greatly on the time of the year it comes on, it should come on in the first of the

Summer and stand and
dry and the plow can
work on it then you may
put it in in the winter
Q Did you not state that
the use of it was lost for
the first year?

A If it comes on after
harvest I think that it
is, if it is put on after
harvest I think it is.

Q Of course it would be
after harvest. There is
nothing raised after harvest
is there?

A Yes. There is lots of
land there that can be
settled up -

Q (You mean to say this;
that if it comes on after
harvest it is lost for
the next year?)

A Yes principally I think

Q So that if I had a
farm up there and you
would run it your sick-
ens in one year I would
use the use of it for

that year?

A I think you would.

Q And if the rent of the land was ten thousand dollars I would lose the rent for that year?

A Yes.

Q That is it?

A But you would make more by it.

Q Now you say that if you had land you would have no use for more than a foot of slickens Mr Belcher He did not say that

A The first time, it would altogether depend upon whether the land was level or not.

Q Suppose it was level what then, would you want more than a foot?

A Yes I would want to fetch it up to a level whatever it was with the surrounding land.

Q Suppose it was uneven.

You would want to bring it up to a level everywhere?

A Yes.

Q That would be your idea of it

A Yes

Q So as to have a smooth surface to farm on, that is it now tell us whether in farming these slickens you want the slickens alone to grow your crop or whether you want the slickens mixed with the black adobe soil under?

A The best land we have up there is said to be slickens land.

Q That is not what I asked you?

A I would prefer the slickens to what I have seen

The Court That is not the question you do not understand him

A I would like the black

Adobe soil under it and
the slickens on top.
Mr Cadwallader You have
not answered the question
yet

[Reporter read question]
The Court is it desirable
to have the soil mixed
with the slickens or to have
the slickens entirely clear
of the soil?

A I suppose it would do
very well to have it mixed
but I would prefer the
slickens itself according
to my knowledge of it.

Q Do you know whether
slickens contain any fertiliz-
ing organic matter?

A I am no Chemist I do
not know about the
fertilizing matter.

Q Do you know whether
slickens contain any veg-
etable mold?

A I think it does.

Q You think it does?

A Yes.

Q Where does it get the
Vegetable Mold, in the
mine or coming through
the valley from the mine
A Well what it covers

Coming through the valley
it would be most of it
Vegetable Mold. There is
a good deal of old rotten
trunks of trees in the
mine, Vegetable Mold.

Q Is there any Vegetable
Mold in the mine?

A Nothing but old rotten
logs that I know of

Q You have been in the
mine have you?

A Yes

Q How far is it off from
these lands that you
say the adobe land
is that has been improved
by it?

A About from 10 to 18 miles
up and down.

Q From ten to 18 miles?

A Yes

Q Where do you live?

A I live near Nelson

O How far from the mine

A Ten miles, eleven miles I believe.

O You live in the town of Nelson on the Rail Road }

A No sir I live about two miles east of Nelson on a branch of the Canal.

O How long have you lived there

A I have lived there since six years ago yesterday.

O You have been there six years

A Yes

O How long have you been in the employ of the company owning these lands } A Ten years

O And you have been living in the neighborhood of these lands for six years

A For six years Yes

2. What is the grade of that canal? A I do not know

Mr Belcher We have not gone into that question at all, and this is incompetent

The Court Is this material?

Mr Cadwalader The grade determines the character of the slickens. It is sometimes very fine, and it varies in quality depending upon the grade of the canal

The Court overruled the objection, and counsel for the defendant excepted

Mr Cadwalader What is the grade of the canal?

A I do not know what the grade is. It is a very flat country.

2. How wide is it?

A In the narrowest place 400 feet

2. Four hundred feet

Ex

on the bottom?

A In the narrowest place on the bottom

Q. Is that the width of it for 9 miles?

A Yes, that is the width of it for about 8 or 9 miles

Q. Is that the width of it from where it leaves the foothills, or Saw-mill ravine? A No sir. That is the width of it from the railroad, south-down south west

Q. From the railroad?

A South-west, down

Q. How wide is it east of the railroad, about the foot of Saw-Mill Ravine?

A. Well, there is a big open country, where it is covered up with heavy tailings, a mile or two wide up there

Q. How far does it run through this wide canal over this valley soil? Before it distributes itself

own these lands that you have, and the land of the Bank of Chico, Garret, Keppel,

A The Bank of Chico, N. G. Murdock, is the first. He is right by the railroad say ten or twelve miles from the mine.

Q How far from the foot of saw mill ravine?

A Well about ten miles

Q Where are Keppels lands with reference to the Rail Road?

A Keppels land is nine miles below the Rail Road South - South west.

Q South west of the Rail Road?

A Yes.

Q Down about any Creek?

A Down on Dry Creek.

Dry Creek is part of it

Q Where do the levees of the Spring Valley Company cease west of the Rail Road -

= Objected to =

Q Does this stuff commence
 covering the lands before
 or after it leaves the levees
 of the Spring Valley Company?
 A After it leaves the levees, we
 make cuts and take it out
 Q How far west of the
 Rail Road do these levees
 cease?

Mr Belcher Objected to
 the question on the ground
 that it is immaterial and
 not in cross examination.
 The Court What is the object
 of this -

Mr Cadwallader It is to
 locate the land

A Nine miles from the
 Rail Road to the lower
 end of Kepples land.

Q Are Kepples lands west
 of the levee system?

A Yes.

Mr Belcher He is endeavoring
 to find the length of the
 levees and I have made
 the objection that that is
 immaterial and not in

Cross examination

Mr Codwallader We want to show this; that here is a stream crossing you might say the Sacramento Valley from West to east, Saw Mill Ravine comes in this way and drops very suddenly into the plains and this company has erected at a distance of four hundred yards apart two immense levees and they run clear across the valley -

Mr Belcher No.

Mr Codwallader I will not say clear across but they run some distance

Mr Belcher Nine miles.

The Court I do not understand what difference it makes he said that it was carried nine miles.

Mr Codwallader Now what farms are at the outlet of this levee system.

7879 Mr M. C. Belcher objected to

the question upon the ground that it was not in cross examination and immaterial

The Court I do not see the materiality of this Mr W. B. Belcher at the outlet of this levee system is a large farm and its owners have sued the old company for damages for putting slickens on the land and that action is now pending in the Circuit Court of the United States.

Mr W. B. Belcher And the suit is for Blood money The Court (You want to show them damage. Mr Cowdallader Yes. Now what lands are there at the mouth of this Canal.

W. B. Belcher We object to this on the ground that it is not in cross examination and irrelevant.

Q The Court overruled the
objection and the counsel
for defendant accepted.

A There is no agriculture
farm at the mouth of
the Canal.

Q Where is Colbys?

A Colbys is away up
20 miles above that.

Q Where is Warren Greens
land?

A That is one side on
Sections four and nine.

Q Now you know where
Colbys land is do you?

A Yes I know where
some of his land was.
Q Was Colbys land covered
by any of these slickens?

A I never was aware of
any.

Q Do you know whether
Colbys land was covered
or not with any of these
slickens?

A No Sir.

Q Coming down from this
hydraulic mine?

A They were partly very
lightly.

Q They were

A Before ever there was
a Canal built there was
a little stream run through
them. It was one of the
branches of Dry Creek and
some of it spread out
there.

Q Tell us how many acres
of Gibbys land were covered?
A I do not know

Q About how many?

A I could not say

Q You were in charge of
this land at that time
for the Company were
you not?

A I was.

Q You were in charge of
the Company land?

A Yes.

Q At that time?

A Yes

Q Now where is Greens
land?

A Greens land is in

Sections four and nine
 Q That would be 960 acres
 A No the present Company
 owns four fortys, 160
 Acres for an outlet on
 the west side of four and
 then they build a levee, Warren
 Green builds a levee to protect
 himself.

Q What part of Greens
 land has been covered
 with slickens from this
 Canal?

A I do not know.

Q Tell us how much?

A It has all been flooded
 There is very little slickens
 on it.

Q How deep is it covered
 with slickens?

A Well I could not say
 that either. We gave
 Warren Green liberty two
 years ago to run it all
 on it.

Q I do not ask you
 about the liberty you
 gave Warren Green. I

Water on to it.

Q That is all the covering you know of?

A I know it has been flooded other ways before ever the levee was built it was flooded.

Q Did not the water from that Canal run over those 960 acres?

A Yes. Not all of it but a good deal on one side of it.

Q How much of the 960

A I do not know how much.

Q Was it the same water from the same mine that run over Warren Greens land?

A No sir I do not think the water from that mine scarcely rose high enough to go over the land. it was the water from the Sacramento and Butte Creek and last year from the Feather River

Q You said a few moments ago that it was flooded with water from this Canal?

A No sir it was flooded from the outside Country

Q Now was not this land of Warren Greens flooded before 1877?

A I expect it has, it was low land.

Q With water from the Canal. }

A I do not know as it was.

Q Well you were there you knew of it?

A The water from the Canal and the water from the Feather River and Butte Creek all mixed together and I could not tell whether the Feather River water or the Sacramento water ran over it

Q The Canal water ran over it in 1877 did it?

A I do not know I expect

it went over part of it.
Q (You expect it did over
part of it, was the mine
running at that time?)

A Yes with the same kind
of slickens coming down

Q You say it has been
running down there since
the Canal was established?

A The same kind of slickens

Q Now to what extent
was Greens land covered
with slickens that year
not saying anything about
where the slickens came
from but just tell us
how deep it was covered
that year.

Mr W. C. Belcher I object
to the question on the ground
that it is irrelevant immaterial
and not in cross examination.
The Witness I do not know
how deep they were. I do
not know as there was
any slickens no more
than the slum from
the back water the

Slimey Water
pending the argument of
the objection the Court
adjourned

Recess until Friday

Dec 23 1881

At 9.30. Am

